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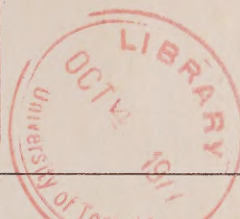
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FOREIGN INVESTMENT REVIEW

Government
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A quarterly journal on
investment conditions in **CANADA**

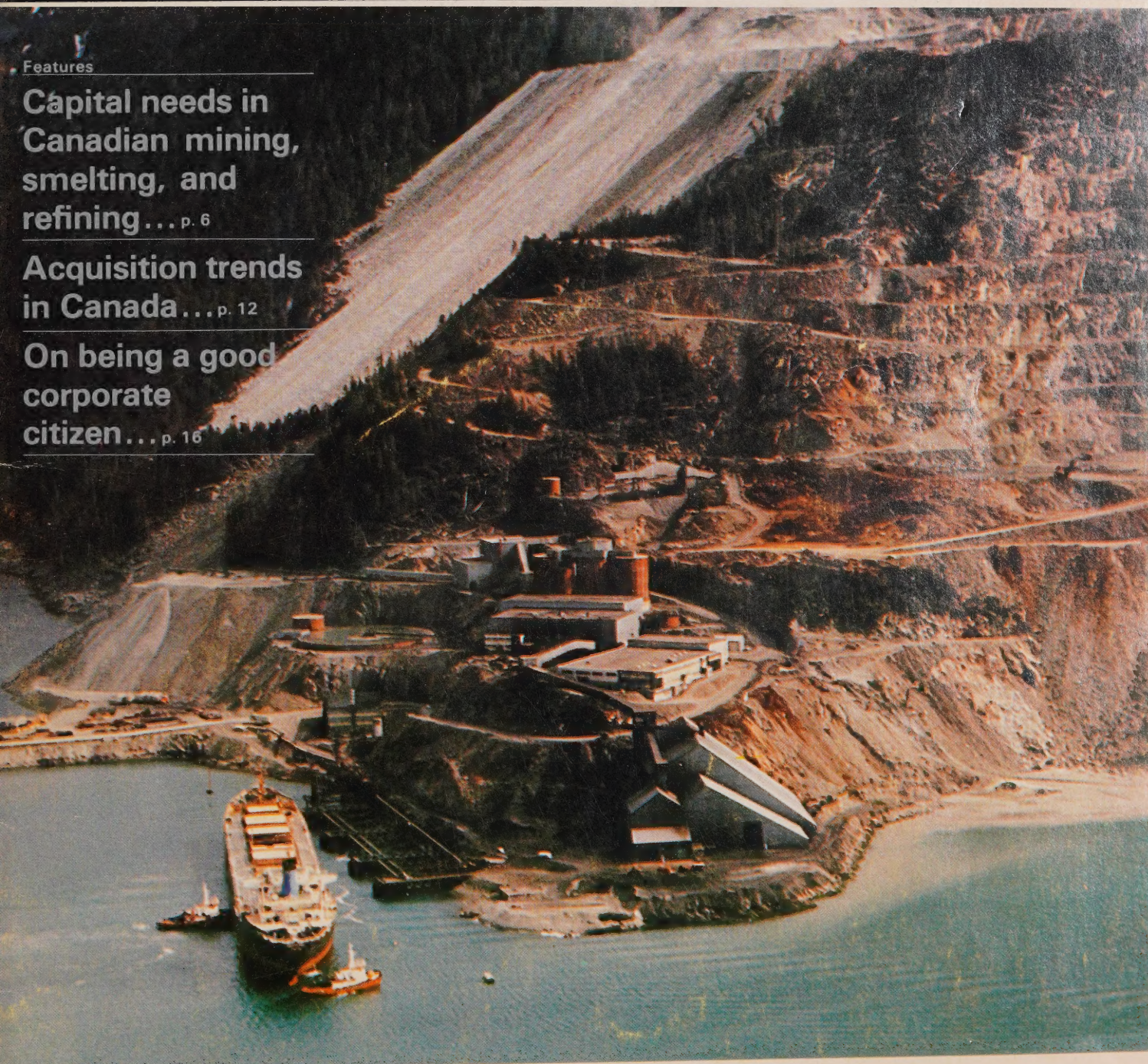
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Features

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FOREIGN INVESTMENT REVIEW

Foreign Investment REVIEW

a quarterly journal on investment conditions
in Canada

Published by the Foreign Investment Review
Agency of Canada

Hon. Jean Chrétien, Minister

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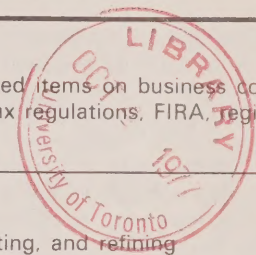
Aerial view of the Falconbridge works in the Queen Charlotte
Islands, British Columbia.
Photo: Falconbridge

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FOREWORD



Jean Chrétien, Minister responsible for the Foreign Investment Review Act

Despite all that has been said and written it is evident that there is still a good deal of uncertainty and confusion about the Foreign Investment Review Act.

Let me stress, at the outset, a point that has been made repeatedly by Ministers since the Act was first introduced. As a matter of policy, Canada welcomes foreign investment generally speaking. We know that we need a great deal of new investment to develop our national economic potential. We also know that we will not in the foreseeable future be able to meet all our needs for new capital, technology, etc., from our own resources.

It is very reasonable to ask why, if that is so, Canada has put in place a foreign investment review process. If foreign investment is desirable and welcome, why screen it?

Perhaps I can best explain by citing a parallel. It is well known that Canada has traditionally followed a very liberal immigration policy. We continue to do so,

relatively to others. Nevertheless, like all other countries we reserve the right to screen would-be immigrants individually so as to assure ourselves that, if admitted, they will likely fit into Canadian society and contribute in some way to our further development. There is no inconsistency that I can see between a generally liberal immigration policy and the existence of a process designed to ensure that entry in individual cases will be of benefit to the country — that, for example, entry will not take place in circumstances where the immigrant would not be able to find work for which he is qualified, or if he did, would simply displace someone already employed.

By law every investment that is reviewable under the Foreign Investment Review Act must be assessed by the Government for "significant benefit to Canada." Those that are judged to meet that test are allowed. By far the greatest proportion have met the test and have been allowed and I expect that to continue. Because the Government chose, very deliberately, and for good reasons, to adopt a flexible, case-by-case, approach it is, for the most part not possible to prescribe, in advance, pre-conditions of allowance, either generally or in relation to particular circumstances.

The main purpose of this periodical is to provide, in the current and subsequent issues, especially to potential investors in Canadian business, some further insight into the principles and the policy framework surrounding the administration of the Act. I firmly believe that better insight will remove any impression that the review process is designed, or is being applied, to "block" foreign investment in Canada.

Jean Chrétien
Minister responsible for the
Foreign Investment Review Act

News briefs

THE ECONOMY

Budgets encourage capital investment

Measures contained in Canada's most recent federal and provincial budgets continue in the direction of encouraging investment and business confidence. The finance ministers of the provinces of Ontario and Quebec in particular have presented budgets conducive to promoting a favorable investment climate. Another major feature of the federal and provincial budgets is an expressed intention to retain tight control over government spending and to restrict government demands on the capital market.

At the federal level, Finance Minister Donald Macdonald introduced several fiscal measures designed to stimulate foreign investment in Canada — particularly, large long-term investments.

Some of the measures include:

- An extension of the 5% investment tax credit for another three years. In addition, the tax credits will be extended to cover expenditures on scientific research and development;

- An increase in the tax credits on investment in slower growth regions of Canada — a 7½% credit for investments in Saskatchewan, Manitoba, Northern Ontario and designated regions of Quebec other than the Gaspé region and a 10% tax credit for investments in the Gaspé region and the four Atlantic provinces — New Brunswick, Nova Scotia, Newfoundland, and Prince Edward Island;

- An increase in the dividend tax credit to 50% from 33⅓% on January 1, 1978;

- A deduction of 3% of the opening value of qualifying inventories in calculating business income each year for incorporated and unincorporated businesses. This measure is designed to minimize the distortion of business income from inventory inflation;

- A simplification of fiscal regulations pertaining to corporate expansion and reorganizations.

These budgetary measures represent a tax relief to the business community of approximately \$660 million for fiscal year 1977-78.

The provincial finance ministers seemed to follow the federal government's lead in presenting austerity budgets designed to restrict government expenditures and encourage investment. In this way, the finance ministers of Quebec and Ontario in particular, attempted to reduce their budgetary deficits and their reliance on borrowings.

Ontario's finance minister Darcy McKeough greatly modified the province's controversial 20% tax on land sold to non-Canadians by limiting the tax to the purchase of agricultural and recreational land and removing it from commercial land. In addition, he presented several measures designed to stimulate small and medium-sized businesses.

Quebec's finance minister Jacques Parizeau also favored small and medium-sized businesses by introducing an industrial incentive program known as "the fund for industrial recovery." Under the new plan, a company can set aside up to 50% of its provincial corporate tax to be drawn out within five years to finance up to 25% of the cost of approved industrial investments.

Optimistic forecast by Conference Board

The president of the Conference Board in Canada, Robert René de Cotret, says he is "guardedly optimistic" that real growth of the Canadian economy will amount to between 5% and 6% in 1978. The Conference Board predicts growth of only 3% for the present year.

Mr. René de Cotret predicted that growth would accelerate next year owing to an underlying improvement in government and business relations and the clarification of the economic environment after the government has made some major decisions.

Among the decisions he predicts will affect the economy is includes a decision to build a northern pipeline, a post wage-and-price-controls policy, a report by the Royal Commission on Corporate Concentration and the tabling of a new competition bill.

The Conference Board, an independent non-profit business research organization, also forecasts that the Canadian consumer price index will increase by between 6% and 7% next year, that corporate profits will expand by 15% or 20% during the same period and that unemployment will gradually decline.

Mr. René de Cotret remarked that recently the Canadian government has seemed much more receptive to ideas and consultation with business and that government seems to be actively searching for solutions to Canada's economic problems.

The Conference Board president also pointed out that corporate profits in Canada are improving and the position of business is strengthening which he says will lead to an upturn in real capital spending by the middle of 1978.

Canada's merchandise trade surplus will increase to between \$2.5 billion and \$3 billion this year and next, he said, and Canada will borrow \$5.5 billion abroad this year. He predicted a continuation of Canada's large balance of payments deficit on a current account basis but he said there would be no problems financing it because Canada is still investment-worthy and a capital account surplus will cover the deficit.

ENERGY

Government report estimates capital needs

Investment totalling between \$170 billion and \$180 billion will be needed in the next 15 years to assure the production and delivery of adequate energy supplies for Canada, according to a document entitled *An Energy Policy for Canada*, prepared by Canada's federal department of energy, mines, and resources.

The document is a discussion paper designed to present the likely evolution of financial requirements to provide adequate energy supplies for Canada. According to one of the predictions, capital investments of between \$90 billion and \$130 billion will be needed for the generation, transportation, and distribution of electricity in the next 15 years. The magnitude of such demands for capital are bound to cause some strains on capital markets, the report notes.

Nevertheless, the authors of the report are confident that the setting of an appropriate price for energy, the rational use of domestic capital markets — and in the case of hydroelectricity, a reliance on foreign loan markets — will permit the amassing of sufficient capital to assure Canada's domestic requirements. The authors of the report also believe that capital for the construction of northern pipelines will require massive inputs of foreign capital.

News briefs

In accord with its policy of attaining energy self-sufficiency for Canada, the minister of energy, mines and resources, Alistair Gillespie, has announced an increase on the tariff on Canadian petroleum and natural gas. As part of the federal budget, Finance Minister Donald Macdonald announced tax incentives to encourage exploration for oil and natural gas in Canada's frontier areas.

In its proposed energy strategy for the next 10 years, the Canadian government has committed itself to increased Canadian participation in resource development. Its vision of future capital requirements in the energy sector suggests Canada is likely to remain reliant on foreign capital.

Bank executive estimates capital needs

An executive of one of Canada's largest banks says that despite the need for large amounts of capital to develop Canada's energy resources, he believes the Canadian economy is capable of generating most of the financial capital required to fulfil foreseeable investment requirements.

Doug Peters, vice-president (finance) of the Toronto-Dominion Bank, in an appearance before the House of Commons standing committee on national resources and public works said Canada's investment expenditures are expected to total \$182 billion or 26.5% of the gross national expenditure by 1990. He also predicted that it will be possible to generate \$174 billion of domestic savings and that \$7.5 billion of net capital inflows will be necessary every year until 1990 to finance Canada's energy needs.

This net import of capital, according to Mr. Peters, is not an alarming amount and would represent only a little more than 1% of the gross national product by 1990 whereas the average net foreign capital inflow has averaged approximately 1.5% of the gross national product in the postwar period.

The Toronto-Dominion Bank estimates for the current year indicate \$41.5 billion of domestic savings and \$4.3 billion of foreign savings for new capital projects are currently flowing through Canadian capital markets or Canadian financial intermediaries. Foreign investment in Canada as estimated by the bank will increase to \$5 billion a year by 1983.

According to Mr. Peters, energy will become the keystone of Canada's economic survival in addition to stimulating industrial

development across Canada. He estimated capital spending by the non-energy industrial sector will rise at an annual average compound rate of 12.3% over the next 12 years, to reach approximately \$78 billion by 1990.

LABOUR

Government programs for industrial relations

A 14-point program designed to improve Canada's labour relations system has been announced by Canada's federal labour minister, John Munro. The main purpose of the program is to foster more harmonious relations between labour and management so that the number of strikes, lockouts and other industrial disputes will be reduced.

The three major aims of the program are:

- To improve the work environment by removing from the bargaining arena as many contentious issues as possible in the field of health, safety, and job enrichment;
- To improve the process of collective bargaining by strengthening its legal framework, improving its services and speeding up procedures through promoting broader-based bargaining, amending the Canada Labour Code, and improving conciliation, mediation, and arbitration services;
- To improve the structure and operation of the labour relations system through such measures as the creation of a national consultative multipartite forum where representatives from labour, business, government, consumers, farmers and other groups could try to help solve common problems. In addition, there are plans for the creation of a collective bargaining information centre to supply data for collective bargaining purposes to both labour and management.

BANKING

Reforms to Canada's Bank Act proposed

Affiliates of foreign banks who have some influence on banking activities in Canada may be recognized in Canadian federal law and be accorded a role in Canada's banking system, according to proposals made by Canada's finance minister, Donald Macdonald.

Under the proposed changes to the Canadian Bank Act, every subsidiary of a foreign bank which grants loans and receives deposits would be obliged to organize itself as a bank under Canadian regulations. Subsidiaries of foreign banks operating in Canada would be accorded a role in the Canadian banking system which would recognize them as important competitors while ensuring the Canadian banking system remains predominantly Canadian-owned and managed.

Foreign-owned banks have been increasing their activities in Canada since the last revision of the Bank Act in 1967, primarily as financial affiliates incorporated under provincial company laws. There are about 120 Canadian corporations in which foreign banks have an equity interest and which are engaged in financial activities. Approximately half these non-Canadian banks are controlled by interests in the United States and the vast majority of the remainder are owned by interests in countries belonging to the European Economic Community.

More than 40 foreign-owned banks currently have representative offices in Canada — more than half of which do not appear to have any investments in Canadian financial corporations. These representative offices do not tend to carry on any business in Canada but are to help establish business contacts and keep informed on economic and financial developments.

TAX REGULATIONS

New Canada-U.S. agreement

A working tax arrangement between Canada's national revenue department and the United States internal revenue service has been formalized and has the purpose of permitting simultaneous examinations of the income tax returns of multinational corporations obliged to pay taxes in both Canada and the United States.

Under the program, tax officials in each country examine the company. Before the audit begins, officials from both countries plan and co-ordinate the examination. Information is then exchanged in accord with the tax treaty provisions.

The exchange of information between the treaty partners ensures co-ordination in the tax treatment of business firms and individuals with activities in more than one

country. Confidentiality of the taxpayer information thus exchanged is protected under specific treaty terms.

In addition, some of the information obtained under the exchange program will be assimilated with other kinds of data from sources in Canada and is to be used in connection with industry studies on topics such as pricing patterns.

FIRA

Procedures simplified for small investments

Important changes in the administration of Canada's Foreign Investment Review Act intended to minimize the administrative burden on applicants to the Foreign Investment Review Agency (FIRA) have been announced.

The major change, according to the minister responsible for the administration of the act, Jean Chrétien, affects the take-over or establishment of a new business involving less than \$2 million in gross assets and fewer than 100 employees. The new regulations permit investors in such relatively small enterprises to give FIRA initial notice of such intention in summary form.

Under the new procedure, the minister responsible for the administration of the act examines the summary proposal and decides whether the information is sufficient to recommend to cabinet that the investment be allowed. The majority of such applications will be processed within 10 days if no further information is required. This change also allows FIRA to direct more of its resources to the assessment of larger and more complex investments.

At the same time, Mr. Chrétien announced the first amendment to the previously-issued Guidelines Concerning Related Business. "The amendment recognizes that there may often be relatedness between an established business in Canada which is engaged in the importation and distribution of proprietary products manufactured abroad by an affiliate and the establishment by the same person or persons of a new business to assemble or manufacture those products in Canada.

Where a new business is — or would be — related to an established business carried on by that same person in Canada the establishment of the new business is not reviewable under the Foreign Investment Review Act.

BUSINESS

Small business programs encouraged

Canadian federal and provincial governments have increasingly supported the establishment and growth of medium and small businesses. A feature of this policy has been government fostering of "industrial parks" particularly in areas of slower economic growth.

One recent example is the industrial development strategy of Canada's smallest province, Prince Edward Island. Recognizing that its small size and population of only 119,000 will not attract or support large-scale industry, P.E.I. is looking to small manufacturing industries to balance its traditional reliance on agriculture and fishing.

With the assistance of the federal Department of Regional Economic Expansion, the province is developing two fully serviced industrial parks — one in Charlottetown and one in Summerside. A feature of one of the industrial parks is an industrial mall building containing 12 self-contained units, each with an office, display room, production space and shipping area. In its first year of operation the building is fully occupied and the companies within it have generated 62 new jobs, \$400,000 in wages and almost \$4 million in sales. Larger industries are starting to locate in the surrounding industrial park.

REGIONAL DISPARITY

Economic Council study

The Economic Council of Canada has recently published the results of a major review of regional disparities in Canada. The study, entitled Living Together — A Study of Regional Disparities, presents evidence that the goal of balanced regional growth still eludes Canada.

Nevertheless, the council says that there is some indication that national policies such as equalization payments, worker migration assistance, and programs of the Department of Regional Economic Expansion have been helpful in reducing disparities. Such policies, according to the council, have contributed to a slight, though uneven, reduction in disparities in income and employment rates.

While the council found it impossible to measure the result of all types of programs, it

showed that location incentives to industry have been a useful tool because the value of jobs created have exceeded the cost of locating production uneconomically.

The study also suggests some new avenues for government policy including urging measures to raise productivity levels in low income areas through raising education standards, encouraging the adoption of improved technology and fostering more economically efficient urban centres.

The other major thrust of the council's recommendations concerned measures to combat unemployment. The council urged the adoption of appropriate fiscal remedies on the part of provincial governments, supported by more regionally sensitive federal fiscal policy.

PIPELINE

Canada favors Alaska Highway route

Following studies of two proposed overland routes for transmitting Alaskan natural gas to United States markets, the Canadian government decided to back the Alaska Highway route. Negotiations now are in progress with the United States. This pipeline would cross Alaska, follow the Alaska-Canada highway through the Yukon and Alberta, then cross Saskatchewan to the United States.

Subsequently, a subsidiary line might be attached to bring Canadian gas from the Mackenzie River delta through the same system.

The alternative overland route through the Mackenzie Valley, which had been backed by some of the major gas shippers, was rejected by Canada's National Energy Board as presenting greater hazards to the natural environment and to the native peoples of the northern regions.

Final approval of the Alaska Highway pipeline will depend on the outcome of negotiations with the United States government and with participating companies about specific routing, environmental and social costs, and financing. The United States also has the option of a more costly alternative — shipping liquified gas from Alaska to U.S. ports.

If the pipeline negotiations between Canada and the United States succeed, construction may nevertheless not begin until 1981, giving time for careful analysis of environmental problems and settlement of the native peoples' land claims.

Capital needs in Canadian mining, smelting, and refining

by G. S. Barry and G. E. Wood

The magnitude of the total capital need in Canada's major non-fuel mining, smelting, and refining industries — here estimated at over \$88 billion (in 1976 dollars) for the 25 years to the year 2000 — poses an enormous challenge to the mineral industries, to governments, and to the capital markets. When viewed along with the capital needs of other sectors of the Canadian economy — such as energy — large questions loom regarding the availability of capital and the mechanisms by which capital will be allocated. This article is not intended to answer the larger questions, but does try to supply one of the key elements towards estimating the total capital needs of the Canadian economy.

Estimates of capital needs in Canadian mining, smelting, and refining must start, of course, with projections of world demand and Canada's share in meeting that demand. Projections of that kind were published in 1974 by the Department of Energy, Mines and Resources in the paper *Towards a Mineral Policy for Canada — Opportunities for Choice*. This article updates those projections in the light of recent developments.

...sufficient exploration and development will thrive only if governments and investors take a positive approach

It also makes estimates of costs and capital expenditures. Our methods of doing so are necessarily complex. They involve, for example, assumptions about capacity growth, costs of new and replacement capacity, rates of depletion and depreciation of mines and plants, and costs of exploration and infrastructure.

Our projections of world demand to the year 2000 are, on the whole, somewhat lower than those published in 1974. This accords with the widespread feeling nowadays that world economic growth is apt to be less vigorous in the future than was expected a few years ago. Our estimates of Canada's share of world production to the year 2000 are roughly the same as those published in 1974, except for nickel, where we have made a distinct downward revision.

We are, by contemporary standards, optimistic. We believe our optimism is well grounded in the latest evidence. The most recent studies have shown, for example, that Canada's mineral resources are sufficiently

extensive to permit the production levels estimated in the present article to be achieved. (See, for example, Department of Energy, Mines and Resources, *Metal Mining in Canada, 1976-2000*, Mineral Bulletin MR 167, 1976.) This will entail considerable expansion. We are aware that sufficient exploration and development will thrive only if governments and investors take a positive approach. If world demand escalates to the extent we project, yet Canada's production share fails — despite physical attainability — to reach the levels we have projected, the country will not have achieved the full range of opportunities and benefits available.

We emphasize that we are not making "forecasts." We are offering "projections." These are simply the outcomes of what we believe to be reasonable assumptions.

...the replacement and repair costs are... greater than the costs of additional capacity

For copper, world mine production is here projected to increase by roughly 3% a year between 1975 and 2000. We expect that Canada will continue to account for over 9% of newly mined world supply.

For zinc, world production is projected to increase at about 3.5% annually, with Canada's share continuing at roughly 25%.

For lead, the growth rate projected for world mine production is somewhat under 2.5% annually. Canada is likely to continue to account for roughly 14% of world mine production.

For nickel, world production is projected to increase at about 5% annually. Most of the major increases in production are expected to come from tropical or semi-tropical countries with lateritic ores rather than from countries — such as Canada, Australia, and the African countries — where production is based mainly on sulphide ores. Nickel from the ocean floor is also expected to become a significant new source of supply. Although Canada's share of world nickel production is expected to decline, we are likely to continue to be the world's leading supplier.

The predominant ore source of aluminum — bauxite — is not found in Canada in economic deposits. However, with the availability of abundant hydro-electric power, Canada has been an important world supplier of aluminum, accounting for roughly 7% of

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the total world production of primary aluminum. We project that, between 1975 and 2000, Canada's production capacity will increase more than 40%.

For iron ore, world production is projected to increase by roughly 4.5% annually to the year 2000. Canadian production, which accounted for 5% of the world total in 1975, is expected to grow at about 2% annually.

Costs of exploration for minerals have, in the past, had a consistent relationship with values of mineral production. Our projections — shown in Table 1 — assume that these historical relationships will continue to prevail.

An important characteristic of Canadian nonferrous metal mines is the co-production of metals. For example, out of a total of more than 90 copper mines operating in Canada in 1974, 66 produced significant amounts of other nonferrous metals in addition to copper. It could be misleading, therefore, to state the unit cost of new nonferrous metal mining capacity in Canada for any single metal separately. In projecting the capital cost of future additions to mining capacity, the fact of extensive co-production of nonferrous metals must be taken into account. The method used here includes the assumption that, for nonferrous metals where co-production has been common, the various metals will continue to be produced in Canada in the same proportions as they were in 1974.

The most recent studies have shown... that Canada's mineral resources are sufficiently extensive to permit the production levels estimated in the present article to be achieved

In the capital costs estimated here for mines and concentrators and shown in Table 2, the per-unit-of-capacity costs are based on data contained in a series of studies — on copper (MR 149) and zinc (MR 159) — published in 1977 by the Mineral Development Sector of the Department of Energy, Mines and Resources.

As shown in Table 2, mine development costs for copper, zinc and lead are estimated to total \$7,955 million for the 25-year period, while development costs for nickel mines are estimated at \$525 million. On a per tonne basis (a "tonne" is a metric ton), the costs associated with the development of iron ore mines are well below those for the nonferrous metals. However, the large increase in production expected for iron ore mines brings total development costs for these mines to \$4,140 million.

TABLE 1

EXPLORATION COSTS 1976-2000

	Exploration as percent of value of production (%)	Total exploration costs (const. 1976 \$ mil.)
Nonferrous metals		
Copper	4	2,200
Zinc	5	1,200
Lead	5	60
Nickel	5	500
Other	-	400
		4,360
Iron ore	"on-property" exploration	400
		4,760

TABLE 2

NEW DEVELOPMENT COSTS — MINES

	Annual tonnes (000)		Cost per unit of increase in capacity	Total cost 1976-2000 (const. 1976 \$ mil.)
	Production 1975	Capacity 2000		
Nonferrous metals				
Copper	820	1,811	\$17,850 per daily tonne of mine/mill capacity	7,955
Zinc	1,300	2,500		
Lead	380	590		
Nickel	330	410	\$6,600 per annual tonne of metal producing capacity	525
Iron ore	67,300	113,290	\$90 per annual tonne of metal producing capacity	4,140
				12,620

TABLE 3

NEW DEVELOPMENT COSTS — SMELTERS, REFINERIES, AND STEEL PLANTS

	Capacity (annual) (000 tonnes)		Cost per tonne of increase in capacity (\$)	Total cost 1976-2000 (const. 1976 \$ mil.)
	1975	2000		
Nonferrous metals				
Copper	560	1,344	1,800	1,410
Zinc	700	1,500	1,350	1,080
Lead	225	385	1,000	160
Nickel	313	390	7,000	540
Aluminum	1,100	1,545	3,000	1,330
Other non-ferrous metals	-	-	-	450
Steel plants	17,055	35,290	500	9,120
				14,090

The problems raised by co-production in the estimating of capital costs for nonferrous metals do not extend beyond the mining-concentrating stage. In nonferrous metal smelting and refining, the capital cost estimates for new capacity are based on established costs for these facilities for each individual metal.

Capital costs for new smelters, refineries, and steel plants are estimated — as shown in Table 3 — to total \$14,090 million between 1975 and 2000. The largest portion of these costs is for steel plants. Within the nonferrous sector, the heaviest expenditures are for copper (\$1,410 million) and aluminum (\$1,330 million).

The third main type of capital cost (after exploration and new mine development) is replacement and repair. Our assumption is that mines producing copper, zinc, lead, precious metals and other nonferrous metals will be completely replaced, on the average, every 18 years. Nickel mines are assumed to be replaced every 20 years. Replacement and repair costs from 1976 to 2000 are estimated at \$14,830 million for nonferrous metal mines other than nickel and at \$2,975 million for nickel mines.

In the ferrous metal sector, replacement and repair expenditures in 1973-74 amounted to \$3.02 (1975 dollars) per tonne of ore shipped. Using this figure, plus



A worker wearing special safety clothing hand pokes the crust of an aluminium reduction cell (Soderberg pot) at the Alcan Aluminium Ltd. works in Arvida, Quebec. Photo: Alcan

estimates that annual capacity of iron ore mines will average 90.3 million tonnes and that the mines will operate at 85% of capacity on the average, we estimate that total replacement and repair expenditures for iron ore mines will amount to \$5,800 million over the 25-year period.

Replacement and repair costs for nonferrous metal smelters and refineries are expected to total \$10,920 million from 1976 to 2000, as shown in Table 4.

One of our assumptions is that smelter capacity will be replaced, on the average, every 25 years. Another is that costs of replacement capacity, on an annual tonne basis, will be similar to costs of new capacity. With a 25-year replacement cycle, it would be necessary to replace, over the full period, capacity equal to the average installed capacity for the 25-year period. Total replacement and repair costs for nonferrous metal smelters are estimated at \$10,920 million for the full period, with the largest single expenditure (\$3,970 million) in the aluminum industry.

For steel plants, replacement and repair expenditures in 1960-73 averaged \$19.16 (1975 dollars) per annual tonne of steel plant capacity. Using this figure, plus the estimate that annual capacity of steel plants between 1975 and 2000 will average 26.2 million tonnes, we estimate that total replacement and repair expenditures for steel

TABLE 4

REPLACEMENT COSTS — NONFERROUS METAL SMELTERS AND REFINERIES

	Average annual capacity 1976-2000 (000 tonnes)	Cost per tonne of annual capacity (\$)	Total cost 1976-2000 (const. 1976 \$ mil.)
Copper	955	1,800	1,710
Zinc	1,100	1,350	1,495
Lead	305	1,000	305
Nickel	351	7,000	2,460
Aluminum	1,320	3,000	3,970
Other nonferrous metals			980
			10,920

TABLE 5

TOTAL CAPITAL NEEDS IN CANADIAN MINING, SMELTING, AND REFINING

(millions of constant 1976 dollars)	Nonferrous metals	Iron and steel	Total
Exploration	4,360	400	4,760
New development			
Mines	8,480	4,140	12,620
Smelters and steel plants	4,970	9,120	14,090
	13,450	13,260	26,710
Replacement and repair			
Mines	17,805	5,800	23,605
Smelters, refineries, and steel plants	10,920	12,540	23,460
	28,725	18,340	47,065
Infrastructure	5,000	5,000	10,000
	51,535	37,000	88,535

plants over the full period will amount to \$12,540 million.

Our estimates of expenditures for infrastructure — including roads, railroads, bridges, airports, sea ports, town sites, recreational facilities and communication networks — are merely our informed guesses. For ferrous metals, the estimate includes possible expenditures for export-oriented steel complexes on the East and West Coasts, plus rail facilities and town-site costs for iron ore production in Northern Ontario. In total, infrastructure costs are estimated at \$10,000 million for the 25-year period.

Total capital needs in Canada's major non-fuel mining industries for the period 1976-2000 — for exploration, new mines, and refineries, replacement and repair of installed capacity, and infrastructure — are shown in Table 5. They amount to over \$88 billion.

Total capital needs for exploration are estimated at \$4,760 million with the bulk (\$4,360 million) in the nonferrous metals sector. Capital needs for development of new mines, smelters, refineries, and steel plants are estimated at \$26,710 million, with about equal portions in the ferrous and nonferrous sectors.

A possibly surprising feature of the estimates is that, under the assumptions used, the replacement and repair costs

(\$47,065 million) are so much greater than the costs of additional capacity (\$26,710 million).

As indicated earlier, the total capital likely to be needed in Canada's non-fuel mining, smelting, and refining industries poses an enormous challenge to the mineral industries, to governments, and to the capital markets. In physical terms, Canada's mineral resources are sufficiently extensive, according to the most recent studies, to permit attainment of the production levels estimated in the present article. But a considerable amount of exploration and capacity expansion is implied, and we realize that these activities will flourish only if governments and investors take a positive approach. We are confident that they will — because a wide range of physically attainable benefits will otherwise not be fully achieved.

The study, Towards a Mineral Policy for Canada — Opportunities for Choice, cited in this article is available free of charge by writing to: Publications Distribution, Minerals Development Sector, Department of Energy, Mines and Resources, 580 Booth St., Ottawa, Canada K1A 0E4

The study on copper (MR 149), the study on zinc (MR 159), and the study entitled Metal Mining in Canada, 1976-2000 (MR 167), cited in this article are available for \$2 each. Please send cheque or money order together with the title and number of the publication to: Publishing Centre, Department of Supply and Services, 270 Albert St., Ottawa, Canada K1A 0S9.



Top left: The Inco Ltd. Birchtree Mine and headframe with the Thompson smelter in background.
Photo: George Hunter

Middle left: An aerial view of Alcan Aluminium Ltd. smelter at Kitimat, British Columbia.
Photo: Alcan

Bottom left: Aerial view of the Alcan Aluminium Ltd. works at Arvida, Quebec.
Photo: Alcan

Top right: City of Thompson, Manitoba, home of a major Inco Ltd. installation.
Photo: George Hunter

Bottom right: An aerial view of the Texasgulf copper, zinc, lead and silver open pit works at the Kidd Creek mine in Timmins, Ontario.
Photo: Herb Nott



Personal notes on the review process

by Gorse Howarth

Looking back over three and a half years of administering the Foreign Investment Review Act, I am struck, first, by the extent of the educational process we have undergone. The old maxim that "administration clarifies legislation" was never more true.

Not that everything has now been clarified; far from it! For one thing, the statute includes a number of concepts — such as "control" of a corporation, "establishment" of a business — which at first sight seem straightforward enough but are occasionally not easy to apply, properly and equitably, in individual cases. Section 3, in particular, contains a number of long and complex passages which define certain terms and concepts bearing on the question as to which investments are reviewable and which are not. Suffice it to say that many lawyers find this section difficult to read, comprehend and interpret.

Yet, although matters of this kind account for page after page of the text of the Act, the underlying intent and processes are simple enough. With certain minor exceptions for very small businesses, any acquisition of control of a Canadian business by non-Canadians has to be reviewed by the Government. And any establishment by a non-Canadian of a new business which is not related to any existing business being carried on by that person is reviewable, without exception. In the great majority of cases it is clear enough whether the investment is reviewable or not. The investor usually knows, without studying the definitions, whether he is a Canadian or non-Canadian and, if non-Canadian, whether or not he is acquiring control of a Canadian business or establishing a new and unrelated business. Only a minority of situations need to be examined more closely, against the definitions and the precise wording of the statute.

Thus the really important question, in most cases, is not so much whether the transaction is reviewable or not but rather, given that it is reviewable whether it is likely to be of "significant benefit to Canada". If the Government concludes that significant benefit is likely the transaction must be allowed; if not it must be disallowed.

Fortunately the statutory rules for establishing whether there is likely to be significant benefit are far more straightforward and concise than those for establishing reviewability or non-reviewability in doubtful cases. The significant benefit rules are set out in Section 2 and more particularly in subsection 2(2). It covers less than the equivalent of half a page in either English or French. Indeed, considering that this is, in a real sense, the heart and soul of the statute, it is perhaps a little anomalous that so little of the Act is devoted to it, while so much more of

the text deals with matters which are usually (though not always) of much lesser importance, to the investor and the Government alike — e.g. the question of reviewability, which I have already mentioned or the processes of "Investigations", where there is reason to believe there has been non-compliance, and the "Remedies", where non-compliance has been established. Up to the time of writing, at least, none of the Investigations or Remedies procedures has had to be invoked.

To get back to "significant benefit to Canada": it is perhaps worth noting two characteristics of the assessment criteria which Parliament prescribed and which are set out in subsection 2(2). In the first place the Government, in deciding whether or not there is significant benefit in a particular reviewable transaction, must take into account *all* those criteria (in so far as they are relevant and applicable to the particular transaction) and *only* those criteria. Secondly, there is no requirement, explicit or implicit, that in order for a transaction to be allowed, it must be shown to be beneficial by reference to each, or indeed to any particular one, of the criteria. To expect that an investment in, for example, a retailing business would or should result in increased Canadian exports, which is one of the stated criteria, would be absurd and clearly not what Parliament intended. Yet some investors have obviously been troubled, at the outset, on that score. We have had no hesitation in setting their minds at rest when we have detected their concern.

... the underlying intent and processes are simple enough

That leads me to one interesting aspect of the Foreign Investment Review Agency's role, as we see it and as it has developed. The Act requires, in the usual formal terms, that a person whose investment is reviewable file notice, in the prescribed form, of his intentions with a description of plans, etc. Sometimes this is exactly what happens and the first intimation we get is receipt of a completed notice. But increasingly there has developed a tendency, which we very much welcome, for investors to contact the Agency at an earlier stage, in a preliminary and less formal way, either to check out reviewability or to discuss their plans and the manner in which their plans can be most advantageously explained and described in a formal notice. Of course the Agency has no power itself to decide anything. Questions pertaining to reviewability would in the final analysis have to be settled by the courts. And significant benefit is a matter for Government Ministers to decide. Nevertheless with some experience now behind us, we can often be



Morse Howarth, Commissioner, Foreign Investment Review Agency

helpful in saving time and trouble and expense, both to investors and to the Government. We believe that it is not at all inconsistent with the Agency's proper role to assist investors who are involved in reviewable transactions to make the best possible case for allowance. Clearly it is not to Canada's advantage that an investment with the potential for real benefit to Canada should be disallowed because the advantages were not made apparent, the plans were insufficiently precise, or the proposal embodied some undesirable feature which on reconsideration could have been eliminated or modified

... a tendency, which we very much welcome, for investors to contact the Agency at an earlier stage...

One sometimes detects signs of concern among investors lest their proposals become the subject of bickering between governments, with consequent confusion and delay. They have noted that provincial governments are consulted, and are entitled to express their views, on reviewable investments which affect them. In the last analysis, of course, it is the Canadian Government that makes the decision. But it is no secret that provincial governments' views carry a lot of weight and there is, without question, the potential for inter-governmental disagreement, argument and delay. Three and a half years ago that might have looked like a serious problem. But now we have a record and it is an encouraging one; good and effective working relations have been developed between the Agency and provincial departments and significant differences of view are indeed few and far between. And it should perhaps be mentioned, lest anyone conclude otherwise

... it is not at all inconsistent with the Agency's proper role to assist investors... to make the best possible case for allowance

from omission, that the processes of consultation on individual cases between the

Agency and other Federal Government departments or agencies which have a particular interest in or responsibility for the business sector to which an investment relates are no less satisfactory.

No one should think, however, that we are at all complacent. There remain some problems that are unresolved. One that is particularly vexing is the issue of confidentiality versus disclosure of information. When an investor files notice of his intentions, and in any discussions that may occur later, he usually, if not invariably, imparts to the Government a good deal of highly confidential information regarding his plans and intentions which he has a right to expect will not become known, prematurely at least, to others, notably potential competitors. Recognizing this, Parliament prescribed that all information obtained in connection with a proposal is to be regarded as "privileged". There are penalties for unauthorized disclosure.

But one consequence — and an unfortunate one — is the impression, which inevitably follows, that the administration of the Act is being carried out behind a veil of secrecy. It is complained that no one, other than the Government and the investor, knows the factual basis on which the Government made its decision (unless, of course, the investor himself chooses to make the details known). More specifically, there is the objection that subsequent applicants or potential applicants are thus deprived of a useful framework of reference by which to judge the likely acceptability or otherwise of their proposals. This dilemma — openness for the general good versus discretion in the use of confidential, private, information — has been with us for three and a half years and we certainly have not yet found any easy, painless solution.

... with some experience now behind us, we can often be helpful in saving time and trouble and expense...

Finally, we are well aware, from our discussions with individual businessmen — applicants and others — that much still needs to be done to make the legislation and its administration better understood. This periodical — the Foreign Investment REVIEW — is a further step in that direction.

ANNUAL REPORT 1976/77 ON THE ADMINISTRATION OF THE CANADIAN FOREIGN INVESTMENT REVIEW ACT

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Historical perspective on acquisition trends

by G. A. Edwards

The study then examines longer-run factors in an effort to come up with a better answer and offers a few judgments on the implications for future trends in acquisition activity in Canada.

A study prepared on behalf of the Foreign Investment Review Agency examines recent cycles in foreign acquisition activity in Canada and tries to throw light on the extraordinary boom that took place in such activity from 1968 to 1970. This boom had generally been regarded as simply another cycle, albeit a strong one. However, a review of the pattern of foreign acquisitions in Canada since the Second World War, and the relationships between this pattern and a number of likely determinants, does not yield a satisfactory explanation of the boom.

The 1968-70 boom, as well as other trends in foreign acquisition activity in Canada since the Second World War are shown in Chart 1. The chart also shows patterns of acquisition activity in the United States since the war. Clearly there is great similarity between the acquisition patterns in the two countries. It does not automatically follow that acquisition activity in the United States is a determinant — or the major determinant — of foreign acquisition activity in Canada, since it is possible that the two series are influenced separately by similar factors in each country.

Two Canadian economists, Grant Reuber and Frank Roseman, in their 1969 study for the Economic Council of Canada — *The Take-Over of Canadian Firms 1945-61* — demonstrated quite persuasively that foreign acquisition activity in Canada between 1945 and 1961 represented to a considerable extent a spillover of acquisition activity from the United States. In any event, regardless of the extent to which acquisition activity in the United States is a determinant of foreign acquisition activity in Canada, the question still remains as to what caused the extraordinary 1968-70 boom in both countries.

The patterns of acquisition activity since 1945 in the United States and foreign acquisition activity in Canada were first

examined in relation to three commonly used series of U.S. and Canadian economic indicators — stock prices, corporate profits after tax, and industrial production. Each of the three might be regarded as an indicator of the level of overall economic activity. Because of the interrelationship between them — such as the influence of corporate profits on stock prices — they cannot properly be regarded as truly independent indicators. It is probable that some form of multiple correlation exists, with the level of acquisition activity being affected by the combined influence of these and other indicators.

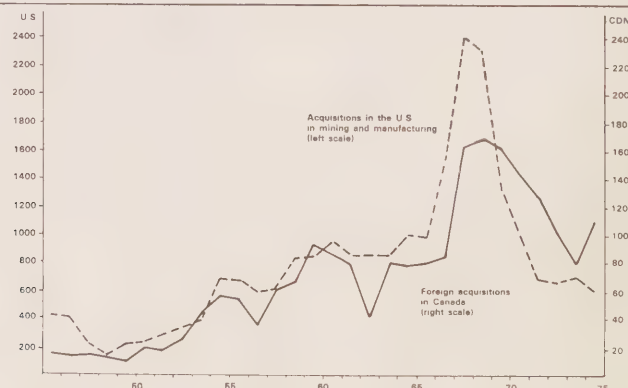
An analysis of these indicators suggests there is indeed a noticeable degree of correlation between the three series and acquisition activity in both Canada and the United States. The correlation is strongest with stock prices, somewhat weaker with after-tax profits, and weakest with industrial production. However, neither stock prices nor any of the additionally noted economic indicators can account for the boom in acquisition activity that took place in both Canada and the United States from 1968 to 1970. This would suggest that some other factor or combination of factors must have contributed. An understanding of what this other factor or factors might be would be helpful in determining whether another major boom in acquisition activity can be expected, and in any event, what the outlook is for future trends in acquisition activity.

Chart 2 shows the long-term pattern of acquisition activity in the United States since 1895. Since then there have been three periods in which acquisition activity rose sharply above the long-term trend, with peaks in 1899, 1929, and 1968. Each of the three booms displayed the following common features:

- a period of hyper-activity lasting up to two years;
- a peak in acquisition activity at or near a major peak in stock prices;
- a steep decline following the peak in acquisition activity;
- after the steep decline, a period during which acquisition activity exhibited a

CHART 1

ACQUISITION ACTIVITY IN THE UNITED STATES AND CANADA



G. A. Edwards is an economist with the industrial analysis division of the Foreign Investment Review Agency.

moderate cyclical pattern but remained well below the peak of the boom; and, the lack of an exceptional peak in production, commodity prices or overall business activity at the top of the acquisition cycle.

All three acquisition booms were accompanied by a rapidly rising stock market. However, there were other occasions when a rising stock market was not accompanied by an increase in acquisition activity. In 1916, 1951, and 1971 the stock market reached a new record level, but acquisition activity remained well below its previous peak. In other words, while a rapidly rising stock market seems to be a necessary component in any acquisition boom, some additional special factor or combination of factors also seems to be required to bring about this infrequent boom.

That factor or combination of factors seems, from analysis of the historical evidence, to have been the infrequent concurrence of an economic, technological, and financial environment in which there was exceptional justification and opportunity for the consolidation of business organizations. The phenomenon has included, in each of the three acquisition booms, the development of a new form of corporate structure, as well as major developments in the economic, technological and financial environment.

The first major wave of acquisition activity, in the late 1890s, came about upon completion of nationwide railway, telegraph, and telephone systems — which made it possible for companies to market their products nationally, rather than only regionally. During the same era, a national capital market had developed. The response of businessmen, in a number of industries, was the consolidation of numerous companies into single large corporations termed "trusts." The existence of a national capital market facilitated a marked increase in public trading of industrial securities, which supported the creation of the "trusts." An enormous number of mergers took place, with rapid expansion of such companies as Standard Oil, U.S. Steel, National Biscuit, and American Tobacco. Monthly trading volume on the New York Stock Exchange rose from 2.4 million shares in January 1897 to more than 24 million shares in January two years later. The number of acquisitions rose from 69 in 1897 to 1,208 in 1899.

In many respects this first boom in acquisition activity was the most impressive of the three. The absolute level of activity — 1,208 acquisitions in 1899 — was remarkable in view of the relatively modest size of the U.S. economy. In fact, the level of acquisition activity in 1899 has been exceeded only four times in the subsequent 77 years.

The second great acquisition boom, in the late 1920s, followed from increasingly widespread ownership of automobiles (which

broke down local monopolies) and radios (which permitted low cost, effective national advertising). During this period the boom in mergers was characterized by the creation of "holding companies" — firms whose sole purpose was to hold shares in other companies. By 1928 almost one-sixth of the companies listed on the New York Stock Exchange were "holding companies" such as General Mills and National Dairy Products. Statistics are not readily available for Canada, but examination of the history of a number of large Canadian corporations reveals that many made one or more acquisitions during the period.

The most recent acquisition boom, in the late 1960s, was characterized by the development of yet another new form of corporation, the "conglomerate." Postwar advances in the application of scientific management principles to large organizations, aided by increasing use of computers, fostered a belief that extremely diverse mixes of productive assets could be managed efficiently. The ability of conglomerates like International Telephone and Telegraph, Gulf and Western, and Litton Industries to acquire a large number of diverse companies was assisted by two other factors — flexible accounting rules and the aggressive money-management goals adopted by investment institutions.

The flexible accounting standards permitted conglomerates, amongst other things, to report exaggerated increases in earnings through the purchase of other companies by means of the issuance of equity-like financial instruments. These instruments, though equity-like, did not have to be taken into account in the calculation of earnings per share — that is, the earnings per share did not have to be reported on a "fully diluted" basis. During this period, professional money managers focused on companies whose earnings were rising the most rapidly — the conglomerates. The money managers, through their bidding, helped drive up conglomerate stock prices. This, in turn, helped the conglomerates to make further

acquisitions through advantageous exchanges of shares. The merger boom peaked in 1968, with the acquisition of 2,400 mining and manufacturing companies in the United States.

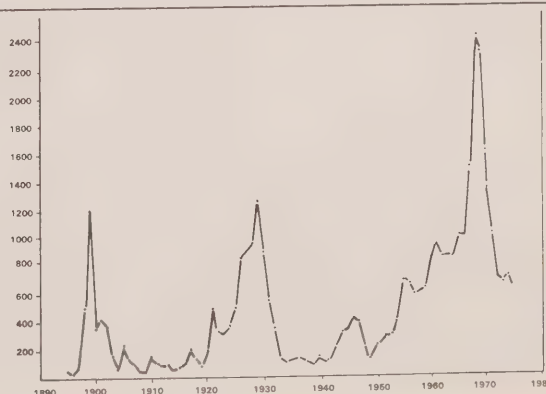
The acquisition activity of the U.S. conglomerates was reflected in the statistics on foreign acquisition activity in Canada in two ways. First, many U.S. conglomerates acquired Canadian-controlled firms as part of a fashionable strategy to expand internationally. Secondly, on the numerous occasions when conglomerates acquired U.S. or overseas companies that had subsidiaries in Canada, the transfer of control over the latter was included in the Canadian foreign acquisition data.

Conglomerate stock prices, and the level of acquisition activity, collapsed abruptly. The stock market declined in 1969, and conglomerate shares plummeted much more sharply than the market as a whole. Lower earnings and stock prices made it more difficult, and eventually impossible, for many conglomerates to continue making acquisitions. Accounting standards were strengthened, mainly through regulation, in the United States, and this helped to eliminate some of the worst abuses of conglomerate accounting and to make mergers less attractive. Other developments that contributed to making mergers less attractive were changes in disclosure requirements and tax regulations.

The historical pattern suggests that the recent lower levels of merger activity in the United States and foreign acquisition activity in Canada are apt to continue for many years. This is to say that acquisition activity has probably returned to what might be termed "normal" levels, well below the recent boom peak. The trend in foreign acquisition activity in Canada is apt to be mildly upward, with an irregular cyclical pattern — until some major economic development and some new form of corporate organization precipitate another acquisition boom. History suggests that it is not likely to occur (if ever) for another 20 or 30 years.

CHART 2

LONG TERM PATTERN OF ACQUISITION ACTIVITY IN THE UNITED STATES



Major Canadian tax incentives to investment

For the past several years the federal and provincial governments have been steadily building up a system of incentives designed to encourage business capital spending and investor confidence. This year's federal and provincial budgets, move in that direction. (See News briefs, p. 3.)

Many of the federal and provincial incentives take the form of special programs which provide grants, loans, forgivable loans, and loan guarantees. (See Incentives to industry, p. 22-24.)

Some of the major incentives to investment are provided for in provisions of the federal and provincial income tax laws rather than in the form of special programs. Below is an outline of the principal incentives offered in the federal income tax law.

For manufacturing and processing activities:

- A special rate of tax on profits from manufacturing and processing activities reduces the general rate on corporate profits 36% to 30%. Provincial corporate tax rates ranging from 10% to 15% are levied in addition to the applicable federal rate. Overall, the corporate tax rate on profits from manufacturing and processing activities ranges from 40% to 45%.
- Accelerated depreciation rates for new machinery and equipment for use in Canadian manufacturing or processing activities. Taxpayers may charge a 50% per year straight line rate of depreciation on the cost of such machinery and equipment — that is, write it off in two years.

For manufacturers, processors and certain other taxpayers:

- A 5% investment tax credit (which had been due to expire June 30, 1977) has been extended for another three years. New buildings, machinery, and equipment purchased up to July 1, 1980, will be covered. This credit is available as a direct reduction from federal tax payable — the cost of the asset to the taxpayer may be reduced by as much as 5%. The tax credit is limited in any one year to \$15,000 plus half the taxpayer's federal tax payable in excess of \$15,000. The balance of any unused credit may be carried forward for 5 years, subject to the same annual limits.
- The tax credit has been broadened, in the latest budget, to cover expenditures on scientific research and development.
- The credit has, in addition, been increased for investments in slower-growth regions of Canada — to 7.5% for Northern Alberta, Saskatchewan, Manitoba, Northern Ontario, and designated regions

of Quebec other than the Gaspé region, and 10% in the Gaspé region and the Atlantic provinces.

Oil and gas exploration:

- A considerable variety of incentives are available to encourage oil and gas and other mineral exploration and development in Canada. A feature of the latest budget designed to give further encouragement to oil and gas exploration in frontier regions, including offshore regions of Canada, is an additional earned depletion entitlement of 66 $\frac{2}{3}$ % of drilling costs in excess of \$5 million on expenses incurred between March 31, 1977 and April 1, 1980. An investor will be able to offset this additional depletion against income from any source. This measure is intended mainly to stimulate offshore drilling. For every \$1 investment in excess of \$5 million (per well) the investor will be able to write off \$2. In effect, the tax system will finance costs in excess of \$5 million. The measure reflects the government's desire to encourage identification of Canadian offshore petroleum resources.

Transportation:

- The capital cost allowed on railway track and grading expenditures made between March 31, 1977, and April 1, 1980 has been doubled to 8% from 4%. A major objective of this measure is to improve grain and coal transportation facilities in Western Canada.

Inventories:

- In recognition of the distortion of business income from inventory inflation, 3% of the opening value of inventories (except fixed property and goods not for resale) will be deductible in calculating business income in fiscal periods commencing after December 31, 1976. This measure provides a degree of immediate relief to business, while the study of the complex issue of inflation accounting continues.

Relief from non-resident withholding tax:

- The withholding tax exemption on government and corporate bonds has been extended to the end of 1982. This exemption for interest on private sector loans applies to a non-arm's length lender on various debt obligations having a fixed term to maturity of not less than five years.

Dividends, capital gains and losses:

- The dividend tax credit will be increased to 50% from 33 $\frac{1}{3}$ %, starting January 1, 1978. This measure enhances the

attractiveness of equity investments and will encourage greater Canadian participation in equity markets.

- Stock dividends from public corporations — that is, dividends paid in the form of shares — will no longer be treated as income, taxable when received, but will be treated as capital gains, taxable only when the shares are sold. This measure will allow corporations to continue paying dividends in the form of stock, and thus to retain the cash for corporate needs. From the investor's point of view, he is thus given the option of postponing any immediate tax and receiving capital gains treatment on ultimate disposition. The alternative is to receive taxable dividends which will benefit from the enriched dividend tax credit after 1977. The choice depends on the investor's marginal tax rate.
- Capital losses that can be set off against other income have been doubled to \$2,000. This measure will help reduce the impact and the fear of capital losses of equity investors, help maintain other income, and stimulate equity investment.
- Capital gains will be included in the present \$1,000 exemption for interest and dividends. This measure enhances the relative attractiveness of equity investment compared to interest-paying investments.

Encouragement of minority interests:

- Until the last federal budget, a private Canadian corporation formed for the purpose of taking interests of 50% or less in other corporations in Canada had to pay a 33⅓% tax on dividends received from such investments.

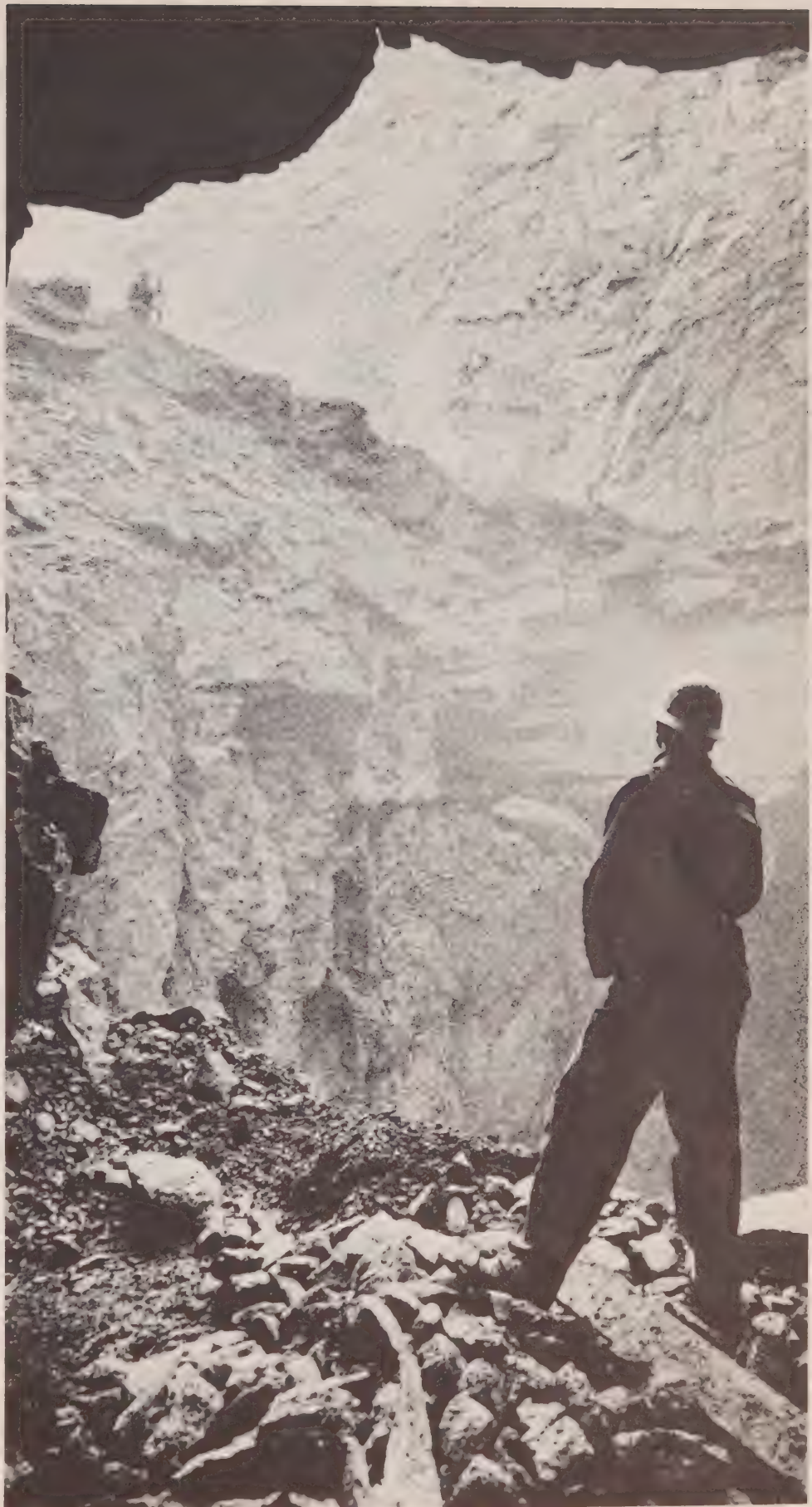
The last federal budget provides that such a private corporation will be totally exempt from tax on dividends from other private corporations as long as it holds more than a 10% equity interest in such corporations. That budget also provides that the general rate of this tax will be reduced to 25% effective at the start of 1978.

These measures will encourage:

- private corporations to take significant positions in other corporations;
- venture capital companies to take positions in other businesses; and
- joint ventures.

- Investors are encouraged to assume minority positions in Canadian-controlled private corporations which are eligible for special lower tax rates.

Inside the stope above the 800-foot level at Kidd Creek Mine, Timmins, Ontario
Photo: Herb Nott



Good corporate citizenship — a view from experience

by J. Herbert Smith

An understanding of the nature of foreign-owned companies in Canada, and a focus on behaviour rather than ownership, provide the best basis for corporate and government policies to strengthen Canadian economic "independence" and surmount Canada's unique set of economic problems.

Among the great variety of foreign-owned companies in Canada, the kinds with which this article concerns itself are in the manufacturing sector. Particular emphasis is placed on science-based manufacturing industries because they are crucial to both economic development and "independence."

Three distinct types of foreign-owned manufacturing firms operate in Canada and control much of the manufacturing industry:

The first might be classified as a "colonial assembly plant." It is essentially a plant established in Canada to assemble parent-company products behind the tariff. It is often small in both employment and sales volume. But it is the most frequently encountered type of manufacturing subsidiary, so that these companies provide in total a large number of jobs.

The second type might be designated an "integrated subsidiary." The parent usually has a narrow but highly sophisticated product scope. The parent designs a worldwide strategy, and subsidiaries are assigned products on the basis of local government policy, unique domestic skills or markets, sources of critical raw materials, or government incentives. The auto industry is an important example.

The third type might be called a "federated affiliate." The term "federated" is meant to imply a high degree of autonomy, together with innovative capability in design, production, and marketing. The subsidiary's management establishes the basic business strategy and all decisions as to products offered, designs, and prices. Management does this on the basis of their evaluation of the needs of the domestic market, the possibilities for export, and the chances of earning a profit by using some appropriate mix of the subsidiary's own resources and those available from the parent company.

More will be said about the three types of foreign-owned subsidiary, especially the "federated affiliate."

But first let us examine the unique set of economic circumstances within which the policy questions arise.

Canada does not have a domestic market large enough to finance development of the wide diversity of equipment and products required to maintain the high living standards — including the latest features in consumer goods and conveniences — so intensely

demanded by the Canadian population. Canadian manufacturing, under the present policy of moderate tariffs, must have ready access — on an up-to-date basis and at competitive costs — to the most advanced technology in the world if it is to survive and grow. With the explosive rate of technological change in the world, there is no evident way in which Canadian science-based companies could, by and large, maintain adequate knowledge and international competitiveness — except, for the most part, through open-door relationships with parent companies in larger economies with larger scales of technology than are possible for Canadian industry.

Some have questioned this by comparing Canada with Sweden or Japan. How has it been possible for Sweden and Japan to achieve a world leadership position in certain technical lines without depending on a subsidiary-parent relationship for the huge research investment needed?

Success in the domestic market is the essential factor in the growth of Canada's secondary manufacturing

The answer is probably found in three factors: strong central government control over economic policy, strong business-government relationships, and strong combinations of business firms. Sweden and Japan utilize and integrate their total resources for the attainment of specific national objectives through centralized government support of chosen industries. In Canada, by contrast, control over industrial policy is divided among the federal and 10 provincial governments. Business-government relationships, although currently improving, are still quite far from those of Sweden and Japan in effectiveness. Canadian combines laws and U.S. anti-trust laws make it extremely difficult for Canadian companies to combine in a united innovative effort backed by government support — something which is much more feasible in Sweden or Japan.

These facts are not presented as arguments for or against the present Canadian laws or division of political power. They are brought out to demonstrate why the Swedish and Japanese approaches to the development of strong internationally competitive products do not seem readily applicable to Canada. A case in point is that Canada has attained a world leadership position through Atomic Energy of Canada Limited in the generation of power from natural uranium. It would not have been politically viable to provide the financial support necessary to any single private company — and no private company could possibly have financed the required investment.

J. Herbert Smith served for 40 years with Canadian General Electric Co. Ltd. and retired in 1972 after 15 years as president, then chairman. He is now chairman of DeHavilland Aircraft of Canada Ltd., holds many directorships in business corporations and community institutions and is a consulting engineer. He was born and educated in Canada.

Let us return to the "federated affiliate" — the highly autonomous subsidiary in secondary manufacturing — and to the implications for the corporate policies of multinational companies towards their subsidiaries in Canada.

It is worth emphasizing to investors and potential investors that, quite apart from its beneficial impact on the host country, the "federated" relationship is being adopted increasingly by large multinational corporations with widely diversified product lines because the autonomous form of relationship has been demonstrated to be the most effective management strategy for the optimizing of returns to the parent company on its investment in a foreign subsidiary.

At the same time, it is critical to Canada's welfare and "independence" that a considerable number of our large science-based industries have the combination of both full access to the latest research and development discoveries in a breadth made possible only with extensive foreign equity ownership in Canada and the decision-making authority and autonomous technical and financial capability of the "federated" relationship.

The "federated" relationship is the only form of relationship between foreign parent and Canadian subsidiary that offers any, as well as all, of the following attainments for a manufacturing subsidiary in Canada and for the country:

- The innovative and other entrepreneurial capabilities to achieve a sufficient success in the domestic market as to make of it a satisfactory base for a free endeavour to export.
- The domestic financial strength, as well as innovative capability, to achieve world product leadership.

The above are, of course, in the interests of Canada as well as the subsidiary. But there are other important "national" interests that are uniquely served by the "federated" relationship:

- The subsidiary's ability to respond independently and entrepreneurially to domestic and other needs and opportunities that are frequently quite different from those of the parent company and may, indeed, be competitive with activities of the parent company.
- The prospect of helping to retain, as well as expand, Canadian industrial independence in the face of the centralizing tendencies of advanced computer technology.
- A sufficient number and diversity of career opportunities for the needs and potentials of Canadians.

The first challenge to the management of Canadian secondary manufacturing is to meet, profitably, the demands of a relatively small but highly sophisticated consumer and industrial market — and to do this with a minimum of tariff protection. Success in the domestic market is the essential factor in the growth of Canada's secondary manufacturing.

What is not widely appreciated is the extent to which innovation has, in fact, taken place in secondary manufacturing in Canada and been essential to its success in even the domestic market. Specially adapted innovative techniques have constituted a high content in the successful development of the multi-product and multi-model assembly lines that have been the basic Canadian response to the uni-product mass production lines of the United States.

Business-government relationships, although currently improving, are quite far from those of Sweden and Japan in effectiveness

The varied end products of multi-model and multi-product assembly lines may be quite different from one another in function and appearance, but they are so chosen that the important components and assemblies can be standardized to a significant extent to permit common usage.

Of even greater importance, components must be such that they can be designed for processing on pooled high speed machines with a minimum of changeover time. This approach creates a volume of like work at the component and component-assembly stage which justifies the investment in mechanization.

Also, in designing multi-product assembly lines, innovative approaches are used through the application of specialized assembly concepts. A significant part of the economy of the uni-product factory can be attained in multi-product factories by these "batch mechanization" and "batch assembly line" techniques — many of which are unique to Canadian industry.

Innovative marketing systems too are needed in Canadian business, because of the low population densities, the distances, and the dual nature of the Canadian culture.

Innovative though all these manufacturing and marketing approaches may be, they do not make secondary manufacturing costs in Canada quite as low as those in the United States. But they can and do generally provide costs near enough to those in the United States for Canadian secondary manufacturing to build a domestic base

profitably within a modest tariff — and from that base, be in a position to consider and attempt exports.

In fact, Canadian secondary manufacturing has attained international leadership in quite a number of products. For example, the unique skills developed in Canada for generating electricity from water power has provided the domestic base needed to attain a strong world competitive position in the design and manufacture of hydraulic generators and hydraulic turbines. Canadian General Electric (CGE) has built such equipments for installation in South America, Africa, and in the United States, all of whom chose a Canadian supplier in a context of world competition. Similarly, CGE developed a powerful international competitive position in the design and manufacture of paper machines, owing to the relatively large domestic market.

With consumer goods, exports to the United States have been developed for those specialty products for which there is a strong Canadian market potential but where the U.S. demand is considered modest by possible mass production U.S. competitors. Examples of such consumer products in which CGE has enjoyed considerable export business to the United States are electric kettles, automobile engine jacket heaters, and portable home humidifiers.

The "federated" affiliate must have the expertise and the freedom to respond independently and entrepreneurially to domestic and other needs and opportunities that are frequently quite different from those of the parent. Furthermore, these responses may involve risk ventures that are competitive with undertakings in which the parent is engaged. A good illustration is the high-risk long-term program of Canadian General Electric in support of the Canadian nuclear power program, pursued concurrently with the parent company's deep involvement in the competitive enriched-uranium program of the United States.

Concern has been expressed that advanced computer technology may lead to increased central decision-making in all multinational corporations. While this is unquestionably true in the case of the large "integrated" international corporations, it is not so in the case of the "federated" type relationship. In that relationship, the designing, manufacturing, and marketing characteristics are unique to domestic market needs, for each of the major product classifications — and these functions are decentralized even within the parent company.

But the "business" decisions of the parent company must be integrated in relation to all products over which the parent company exercises decision-making authority.

Now, it becomes too complex an information system to integrate business decisions concerning each of the subsidiary product groups with the corresponding parent company group, and then in turn to integrate such groups in relation to the overall corporate strategies of the affiliates, since each affiliate's strategy may be quite different from that of the parent company.

In other words, the "federated" relationship is crucial for the retention, as well as the development, of Canada's industrial "independence." To the extent that the "integrated" form of subsidiary is prevalent, industrial independence may slip increasingly out of the country as, in part, a result of the centralizing tendencies of advanced computer technology. But to the extent that the "autonomous" relationship is prevalent — and encouraged — there is an immunity to the computer's tendencies to centralize decision-making and thus drain entrepreneurial independence out of Canadian industry.

In addition to the benefits described above, the "federated affiliate" provides career opportunities for Canadians in all the functions of modern business including executive decision-making under the broad direction of the subsidiary's own board of

Canadian secondary manufacturing has attained international leadership in quite a number of products

directors. Neither the "colonial assembly plant" nor the "integrated subsidiary" provides the opportunity for Canadian management to assume full responsibility for evaluating the needs of their market, both domestic and export, for determining the company's overall business strategy, and for the design, manufacture and marketing of products or services to profitably meet customer needs.

A nation cannot long exist if it loses brilliant young men and women to other countries as soon as their schooling is completed. Our young people are demanding a dimensional quality of life in their work, as well as in leisure. It is not now sufficient to simply provide jobs. With the growth in scope of today's educational programs, financed at ever-increasing public cost, graduates seek career opportunities in an expanding number of disciplines. Job opportunities in Canada must not only conform with the anticipation of our young people, but the jobs must be productive in an economic sense in order to contribute to the cost of the expanding social needs of the nation.

All in all, one can hardly place too much emphasis on how important it would be to Canadians if the international investment community were more fully to appreciate and support Canada's need for increased autonomy in its foreign-controlled companies.

Principles of international business conduct

Foreign-controlled businesses in Canada are expected to operate in ways that will bring significant benefit to Canada. To this end they should pursue policies that will foster their independence in decision-making, their innovative and other entrepreneurial capabilities, their efficiency, and their identification with Canada and the aspirations of the Canadian people.

Within these general objectives, the following principles of good corporate behavior are recommended by the Canadian government. Foreign-controlled firms in Canada should:

1. Pursue a high degree of autonomy in the exercise of decision-making and risk-taking functions, including innovative activity and the marketing of any resulting new products.
2. Develop as an integral part of the Canadian operation an autonomous capability for technological innovation, including research, development, engineering, industrial design and preproduction activities; and for production, marketing, purchasing and accounting.
3. Retain in Canada a sufficient share of earnings to give strong financial support to the growth and entrepreneurial potential of the Canadian operation, having in mind a fair return to shareholders on capital invested.
4. Strive for a full international mandate for innovation and market development,

when it will enable the Canadian company to improve its efficiency by specialization of productive operations.

5. Aggressively pursue and develop market opportunities throughout international markets as well as in Canada.
6. Extend the processing in Canada of natural resource products to the maximum extent feasible on an economic basis.
7. Search out and develop economic sources of supply in Canada for domestically produced goods and for professional and other services.
8. Foster a Canadian outlook within management, as well as enlarged career opportunities within Canada, by promoting Canadians to senior and middle management positions, by assisting this process with an effective management training program, and by including a majority of Canadians on boards of directors of all Canadian companies, in accordance with the spirit of federal legislative initiatives.
9. Create a financial structure that provides opportunity for substantial equity participation in the Canadian enterprise by the Canadian public.
10. Pursue a pricing policy designed to assure a fair and reasonable return to the company and to Canada for all goods and services sold abroad,

including sales to parent companies and other affiliates. In respect of purchases from parent companies and affiliates abroad, pursue a pricing policy designed to assure that the terms are at least as favourable as those offered by other suppliers.

11. Regularly publish information on the operations and financial position of the firm.
12. Give appropriate support to recognized national objectives and established government programs, while resisting any direct or indirect pressure from foreign governments or associated companies to act in a contrary manner.
13. Participate in Canadian social and cultural life and support those institutions that are concerned with the intellectual, social, and cultural advancement of the Canadian community.
14. Endeavour to ensure that access to foreign resources, including technology and know-how, is not associated with terms and conditions that restrain the firm from observing these principles.

The Principles of International Business Conduct were devised by the minister responsible for the administration of the Foreign Investment Review Act in 1975 to help answer the question, "What does the Canadian government look for in assessing significant benefit to Canada?" While the above principles are not directly related to the administration of the act, they will assist investors by elaborating on what Canada expects of foreign investors.

CAPITAL INVESTMENT PROJECTS IN CANADA

I. MINERALS AND FOREST PRODUCTS

This list shows capital spending projects in progress or in the final planning stages. The projects are limited to those in the minerals and forest products sector costing more than \$5 million. Other industries will be covered in future issues of Foreign Investment REVIEW.

Company and project description	Completion date	Cost (\$million)	Location
British Columbia			
Afton Mines Ltd. New copper mine, mill and smelter	1977	80.0	Kamloops area
Cominco Ltd. Modification and expansion lead-zinc mine and smelter	1980-85	425.0	Kimberley and Trail
Kaiser Resources Ltd. Expansion of hydraulic coal mine operations	1979	40.0	Sparwood
British Columbia Forest Products Ltd. Plant modernization; new power boiler	1977	11.0	Crofton
Canadian Cellulose Co. Ltd. Conversion of sulphite pulp mill to bleached kraft process	1978	100.0	Prince Rupert
New small-wood sawmill	1978	7.7	Castlegar
Crestbrook Forest Industries Ltd. Improvements and expansion at bleached sulphite mill	1977	18.0	Skookumchuk
Crown Zellerbach Canada Ltd. (Part of 5-year \$250 million program)			Campbell River
Thermo-mechanical pulping system	1978	26.6	
New sawmill and planer mill	1978	17.8	
New plywood veneer plant	1978	16.3	
Eurocan Pulp and Paper Co. and Weldwood of Canada Ltd. New sawmill	1978	15.0	Houston
Kootenay Forest Products Modernization; new pole plant	1977	7.0	Nelson
MacMillan Bloedel Ltd. Modernization, improvement, pollution control:			
Pulp mill	1978	22.0	Port Alberni
Pulp/sawmill	1977	11.0	Harmac
Pulp mill	1980	62.0	Harmac
Pulp mill	1979	63.0	Powell River
Logging plant expansion	1982	300.0	South Coast
Shipping improvements, new barge	1978	16.0	South Coast
Pacific Inland Resources Ltd. Sawmill modernization	1977	6.0	Smithers
Plateau Timber Ltd. Sawmill expansion	1977	6.5	Engen
Rayonier Canada Ltd. Modernization, pollution control	1977	48.0	Port Alice
New product development	1977	7.0	Woodfibre
Alberta			
Calgary Power Ltd. Extended Highvale coal mine — Phase 1	1980	50.0	Lake Wabamun
Gregg River Resources Ltd. New open-pit coal mine	n.a.	75.0	Hinton area
Luscar Sterco Ltd. New open-pit coal mine	1978	90.0	Coal Valley
Northwestern Pulp and Power Ltd. Environmental project	1979	35.0	Hinton
Simpson Timber Co. (Alta.) Ltd. New sawmill and planer mill	1977	20.0	Blueridge
Saskatchewan			
Amok Ltd. New uranium mine and mill	1979-80	75.0	Cluff Lake
Eldorado Nuclear Ltd. Housing program and mill renovation	1978	17.0	Beaverlodge



Worker uses a pneumatic crustbreaker to break the rock-hard crust which forms on the surface of the electrolyte bath at a modern aluminium smelting potline in Arvida, Quebec.
Photo: Alcan

Company and project description	Completion date	Cost (\$million)	Location
Saskatchewan Potash Corp. Mine expansion	1979	10.0	Cory
Saskatchewan Power Corp. New strip coal mine	1978	130.0	Coronach
Prince Albert Pulp Co. Ltd. Environmental project bleached sulphate mill	1978	7.0	Prince Albert
Manitoba			
Hudson Bay Mining and Smelting Co. Ltd. Centennial copper-zinc mine development	1977	n.a.	Flin Flon area
Inco Ltd. Birchtree mine extension	1982	30.8	Thompson area
Sherritt Gordon Mines Ltd. New copper-zinc mine — Ruttan mine	1978	30.0	Leaf Rapids
Ontario			
Agnew Lake Mines Ltd. New uranium mine	1978	37.0	Agnew Lake
Algoma Steel Corporation Ltd. Development of McLeod iron mine	1979	39.0	Algoma district
Denison Mines Ltd. Backfill plant and employee accommodation	1978	20.0	Elliot Lake
Uranium mine-mill expansion	1980	n.a.	
Falconbridge Nickel Mines Ltd. New mine development, Craig Mine	1983	n.a.	Sudbury area
Lateral development, Fraser Mine	1979	n.a.	
Smelter environmental improvement project including new sulphuric acid plant	1978-79	95.0	
Inco Ltd. Major mining development projects: Clarabelle, Copper Cliff North, Creighton, Crean Hill, Frood-Stobie, Copper Cliff South and Garson mines, Levack mine	1978-84	n.a.	Sudbury area
New rolling mill	1977	29.0	
Mattagami Lake Mines Ltd. Development of new copper-nickel mine,	1977	20.0	Ignace area
Rio Algom Mines Ltd. Expansion of Quirke uranium mine	1978	76.0	Elliot Lake
Reactivation and expansion of Panel mine	1980	100.0	
Texasgulf Canada Ltd. Mine-mill expansion (1979) New copper smelter and refinery	1978-80	350.0	Timmins area
Abitibi Paper Co. Ltd. New sawmill	1977	10.0	White River
American Can of Canada Ltd. New recovery boiler, kraft pulp mill	1978	26.4	Marathon
Consolidated-Bathurst Ltd. Sawmill reconstruction	1977	n.a.	Braeside
Domtar Ltd. Conversion and additions to paper mill	1977-78	n.a.	Cornwall
Capacity expansion, gypsum wallboard plant	n.a.	20.0	Caledonia
Kimberley-Clark of Canada Ltd. Expansion of bleached kraft pulp mill	1977	240.0	Terrace Bay
The Ontario-Minnesota Pulp and Paper Co. Ltd. Increased capacity, pulp and paper mill	1978	20.0	Fort Frances
Reed Paper Ltd. Capacity expansion and environmental control at kraft pulp mill	1980	120.0	Dryden
Spruce Falls Power and Paper Co. Ltd. Paper machine modernization	1977	16.0	Kapuskasing
Trent Valley Paperboard Mills New paperboard mill	1978	15.0	Trenton
Quebec			
Alcan Aluminium Ltd. New aluminium smelter	1981	200.0	La Baie



A stand of trees in one of Canada's many huge tracts of timber.
Photo: Canadian Government Office of Tourism

Company and project description	Completion date	Cost (\$million)	Location
Asbestos Corp. Ltd. Asbestos dust control program	1977	17.0	Thetford Mines
Bell Asbestos Mines Ltd. Asbestos dust control program	1978	8.5	Thetford Mines
Dresser Industries Ltd., Canadian Refractories Div., mine-mill expansion	1977	n.a.	Kilmar
Falconbridge Copper Ltd. Corbet mine development	1979	22.0	Noranda
Cooke mine development	1978	9.4	Chapais
Noranda Mines Ltd. New process equipment for copper refinery	1977	6.0	Montreal
Orchan Mines Ltd. Development of zinc-copper deposit	1978	9.0	Matagami area
Sidbec-Normines Inc. Iron mine development; concentrator improvement; new pellet plant	1977	462.0	Fire Lake and Port Cartier
Canadian International Paper Co. Ltd. Machine modernization	n.a.	40.0	La Tuque
New plant to produce new type of pulp	1979	30.0	Gatineau
Consolidated-Bathurst Ltd. Paper machine speed-up (deferred from 1977)	1979	25.0	Port Alfred
Domtar Ltd. Newsprint mill machine replacement	1977	15.0	Dolbeau
New steam power boiler for pulp mill	1977	6.9	Lebel-sur-Quévillon
Donohue-St. Félicien Inc. New bleached kraft pulp mill	1978-79	302.7	St. Félicien
Eddy Paper Co. Ltd. Rebuilding paper machine	1977	10.0	Hull
Forex-Leroy Inc. New plywood plant	1978	17.0	Val d'Or
Quebec North Shore Paper Co. and Rexfor New sawmill and finishing complex	1978	24.0	Baie Comeau
Rayonier (Quebec) Inc. Production facilities, pollution control	1977	25.3	Port Cartier
Tembec Forest Products Inc. Sulphite Pulp mill expansion and environmental improvement	1979	40.0	Temiskamingue
Atlantic Provinces			
British-Newfoundland Exploration Ltd. New uranium mine	n.a.	n.a.	Hopedale, Lab.
Brunswick Mining and Smelting Corp. Ltd. Zinc-lead mine development	1979	53.0	Belledune Point, N.B.
Geo. Wimpey Canada Ltd. Open-pit coal mine	n.a.	7.0	Stellarton, N.S.
New Brunswick Mining Co. Ltd. New dragline and coal mine development	1979	26.0	Salmon Harbour, N.B.
Bowater Canadian Ltd. Conversion to thermo-mechanical groundwood process and newsprint machine renovation	n.a.	7.0	Cornerbrook, Nfld.
Consolidated-Bathurst Ltd. Increased pulp mill capacity	1978	6.0	Bathurst, N.B.
Fraser Companies Ltd. Enlarging pulp mill	1979	91.5	Edmundston, N.B.
Nova Scotia Forest Industries Ltd. Extension of wood-room facilities	1978	8.8	Point Tupper, N.S.
Price (Nfld.) Pulp and Paper Ltd. New groundwood refiner plant	1977	28.9	Grand Falls, Nfld.
Yukon and Northwest Territories			
Canada Tungsten Mining Corp. Ltd. Mill capacity expansion	1979	10.0	Flat River, N.W.T.
Cyprus Anvil Mining Corp. Additional equipment	1977	14.8	Faro, Y.T.

Incentives to industry

The following is a list of the major incentives to industry offered by the federal and provincial governments and available to both Canadian and non-Canadian investors. To qualify, companies must be incorporated in Canada.

FEDERAL GOVERNMENT INCENTIVES

Department of Industry, Trade and Commerce

Enterprise Development Program (EDP)

The program assists eligible manufacturing and processing firms to become more viable and internationally competitive through grants and loans. The grants are to help firms to develop proposals for project assistance, study market feasibility or productivity improvement, procure industrial design services, and develop or introduce new technology. Loans or loan guarantees assist restructuring or rationalization. Further grants or loans are also available to help firms to meet special problems or to further specific government objectives. * **Contact:** *Enterprise Development Board, Department of Industry, Trade and Commerce*, at the address below.

Machinery Program

This program provides for remission of import duty on types of machinery not manufactured in Canada, when the importation of such machinery is vital to an enterprise.

* **Contact:** *Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce*, at the address below.

Agricultural and Food Products Market Development Program (AGMAP)

Financial assistance to develop domestic and export markets for agriculture and food products. * **Contact:** *Programs Unit, Agriculture, Fisheries and Food Products Division, Department of Industry, Trade and Commerce*, at the address below.

Other Programs

Financial assistance programs are also available for shipbuilding, defence production, fashion design, grains and

oilseeds marketing and for export market development. * **Contact:** *Department of Industry, Trade and Commerce*, at the address below.

National Research Council Industrial Research Assistance Program (IRAP)

Shares cost of selected research projects. * **Contact:** *National Research Council*, at the address below.

Pilot Industry/Laboratory Program (PILP)

Provides shared-cost research between NRC laboratories and industrial firms. * **Contact:** *National Research Council*, at the address below.

Department of Regional Economic Expansion (DREE)

Provides cash grants and loan guarantees to encourage location or expansion of manufacturing and processing facilities in regions of Canada designated as slow-growth regions. * **Contact:** *Industrial Incentives Branch, Department of Regional Economic Expansion*, at the address below.

Federal Business Development Bank (FBDB)

Provides financial assistance to business, particularly small business, in the form of loans, loan guarantees, equity financing or leasing. Management services are also available to small businesses. * **Contact:** *Federal Business Development Bank*, at the address below.

Department of Finance

Guarantees loans up to \$50,000 from approved lenders to proposed or existing businesses whose actual (or estimated) gross revenue is less than \$1 million.

* **Contact:** *Guaranteed Loans Administration, Department of Finance*, at the address below.

* As a service to REVIEW readers, FIRA, will receive all inquiries directed to the federal programs and forward them, unopened, to the appropriate agency, the same day FIRA receives them. Please address enquiries about the federal incentive programs to: The name of the program

c/o The Foreign Investment Review Agency, P.O. Box 2800, Station "D", Ottawa, Canada K1P 6A5. Please address enquiries about provincial programs directly to the province concerned at the address given in each case.

PROVINCIAL GOVERNMENT INCENTIVES

ALBERTA

Alberta Opportunity Company

Provides financing for Alberta manufacturing and service businesses through direct loans or guarantees of loans for fixed assets or working capital when funding is not available from conventional lending institutions.

Contact: *Alberta Opportunity Company, Box 1860, Ponoka, Alberta, Canada T0C 2H0.*

Canada-Alberta Subsidiary Agreement on Nutritive Processing Assistance

The maximum grant under this program is 35 per cent of the total capital required to build or expand a facility. The grant is restricted to nutritive processing operations in which raw or semi-processed products are physically or chemically altered, processed, or refined or made more marketable as nutritional products for humans, animals, or plants. The grants are available for operations anywhere in Alberta except Edmonton and Calgary. **Contact:** *Executive Director, DREE Program, Agriculture Building, 11th floor, 9718 — 107th St., Edmonton, Alberta, Canada T5K 2C8.*

BRITISH COLUMBIA

British Columbia Development Corporation

Provides information and assistance for new or expanding business in British Columbia. Assists with market studies, marketing, and forecasts in addition to leasing and selling industrial land. It also provides direct and indirect financing for land acquisition, equipment, buildings, and start-up costs. **Contact:** *British Columbia Development Corporation, 272 Granville Square, 200 Granville St., Vancouver, British Columbia, Canada V6C 1S4.*

Department of Economic Development

The business development program provides assistance in marketing British Columbia-manufactured products outside the province by providing financial support to businesses to participate in trade shows and trade missions outside Canada. It also provides a market development assistance program, a technical assistance program, a small business assistance program and a business information service on the availability and source of various forms of financial and other assistance to business. The new business service provides counselling and information about government regulations. **Contact:** *Business and Industrial Development Branch,*

Department of Economic Development, Box 10111, 700 West Georgia St., Vancouver, British Columbia, Canada V7Y 1C6.

MANITOBA

Manitoba Development Corporation

Provides loans to companies in manufacturing and processing industries.

Contact: *Manitoba Development Corporation, 600 Power Building, 428 Portage Ave., Winnipeg, Manitoba, Canada R3C 0E4.*

Design Assistance Program

Cost-sharing of consulting and advisory services for market research, design and redesign of products and packages. **Contact:** *Manitoba Design Institute, 155 Carleton St., 5th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Export Incentive Program

Cost-sharing of promotion for new export markets. **Contact:** *Manitrade, 155 Carleton St., Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Research Council

The Research and Development Assistance Program provides shared-cost assistance for research and development of new or improved products or processes. The council's Canadian Food Product Development Centre provides advice and in-plant assistance including laboratory work for food and feed industries. **Contact:** *Manitoba Research Council, 155 Carleton St., 6th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Department of Industry and Commerce

The Feasibility Studies Incentive Program assists manufacturing and processing industries with shared-cost feasibility studies on establishing or expanding manufacturing. The DREE Application Incentives Program provides shared-cost assistance to employ outside consultants in the preparation of applications to the federal government's Department of Regional Economic Expansion programs for the establishment or expansion of manufacturing facilities. The Productivity Improvement Program provides shared-cost assistance to identify problems and obstacles to growth. The Manpower Development Assistance Program provides cost-sharing of manpower development programs. **Contact:** *Department of Industry and Commerce, 155 Carleton St., Winnipeg, Manitoba, Canada R3C 3H8.*

NEW BRUNSWICK

New Brunswick Industrial Development Board

Administers a joint federal-provincial

interest-free forgivable loan program oriented to small businesses. **Contact:** *Department of Commerce and Development, P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

New Brunswick Provincial Holdings Limited

Will take equity position manufacturing companies locating in New Brunswick. **Contact:** *N.B. Provincial Holdings Ltd., P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

Research and Productivity Council

Provides technical support services for industry in New Brunswick, including engineering and problem solving, industrial research and development, and management consulting, on a cost-recovery basis. **Contact:** *N.B. Research and Productivity Council, College Hill Road, Fredericton, New Brunswick, Canada E3B 5C8.*

NEWFOUNDLAND

Newfoundland and Labrador Development Corporation

Provides equity and loan financing up to \$1 million for establishing or expanding small and medium sized businesses. **Contact:** *Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.*

Department of Industrial Development

Approved financing of new or expanding business ventures in amounts of more than \$1 million. **Contact:** *Department of Industrial Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7.*

NOVA SCOTIA

Industrial Estates Ltd.

Long-term loans on 20-year first mortgages on 100 percent of the cost of new land and buildings of secondary manufacturers and up to 60 percent financing of new machinery with 10 years to repay. **Contact:** *Industrial Estates Ltd., 5151 George St., Suite 700, Halifax, Nova Scotia, Canada B3J 1M5.*

Industrial Loan Act, Industrial Development Act, Industrial Expansion Act

Loans at subsidized rates of up to 75 percent for new land and fixed assets for processing industries and tourist facilities. **Contact:** *Nova Scotia Resources Development Board, Bank of Montreal Towers, P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

ONTARIO

Ontario Development Corporation

Programs include: industrial mortgages and leasebacks, export support loans, venture capital loans, pollution control equipment loans, loans to small businesses, tourist industry loans, and incentive loans to encourage industries to locate or expand in slow-growth areas of Ontario. **Contact:** *Ontario Development Corporation, Mowat Block, 3rd floor, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Ontario Industrial Training Program

Assistance for training programs to companies locating in areas where such programs will help improve employment opportunities. **Contact:** *Ministry of Colleges and Universities, Industrial Training Branch, Mowat Block, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Retail Sales Tax Exemption for Pollution Control Equipment

A retail sales tax exemption is granted to a manufacturer or producer who purchases machinery or equipment for use in the detection, measurement, prevention, treatment, reduction or removal of pollutants in the air, water, or soil that are attributable to manufacturing or producing operations. **Contact:** *Ministry of Revenue, Government of Ontario, Retail Sales Tax Branch, Queen's, Toronto, Ontario, Canada M7A 1X9.*

PRINCE EDWARD ISLAND

Industrial Enterprises Incorporated

Provides assistance for capital expenditures in the form of first mortgage loans on real estate and/or equipment. **Contact:** *Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0.*

P.E.I. Department of Industry and Commerce

The Industrial Assistance Program is directed at the manufacturing and processing sectors based on a maximum capital cost of \$25,000 with a maximum grant of \$12,500 or 25 per cent of the total capital cost with allowances up to \$2,000 for each new job created. The Service Sector Assistance Program is directed at the support industries to the agricultural and fisheries sector based on a maximum capital cost of \$60,000 with a maximum grant of \$30,000 and 25 per cent

of the total or \$2,000 for each new job created. **Contact:** *Department of Industry and Commerce, P.O. Box 2000, 180 Kent St., Charlottetown, Prince Edward Island, Canada C1A 7N8.*

QUEBEC

Quebec Industrial Development Corporation (QIDC)

The corporation is a financial intermediary of the Quebec department of industry and commerce which provides assistance for manufacturing investment projects with provision for low-cost loans and interest reimbursement equity participation. **Contact:** *Quebec Industrial Development Corporation, 1126 Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.*

Quebec Department of Industry and Commerce

Services to foreign investors include trade missions and export promotional campaigns in collaboration with Quebec-based businesses; manufacturing investment advice; industrial sector surveys; and consultation services on marketing, finance, production and administration. Other incentives include corporation tax exemptions and sales tax exemptions on products used in manufacturing. **Contact:** *Quebec Department of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

Quebec Mining Exploration Company (SOQUEM)

This Crown corporation, wholly-owned by the Quebec provincial government, encourages joint ventures with foreign investors in the mining sector. **Contact:** *SOQUEM, 2406 Chemin des Quatre Bourgeois, Ste-Foy, Quebec, Canada G1V 1W5.*

SASKATCHEWAN

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial land for lease or sale. **Contact:** *Saskatchewan Economic Development Corporation, 1106 Winnipeg St., Regina, Saskatchewan, Canada S4R 6N9.*

A huge Bucyrus-Erie churn drill at work at Gaspé Cooper Mines, Ltd., Murdochville, Quebec.
Photo: George Hunter



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Metal Mining in Canada, 1976-2000

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Martin, H. L., Cranstone, D. A. and Zwartendyk, J.
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TABLE I — SUMMARY

REVIEWABLE ACQUISITION CASES						
	1976				1977	
	first quarter	second quarter	third quarter	fourth quarter	first quarter	second quarter
Total	26	42	45	58	41	60
Industry						
Primary	5	3	4	3	3	2
Manufacturing	11	25	28	29	16	27
Construction and services	10	14	13	26	22	31
Country of control						
United States	14	27	28	40	25	40
United Kingdom	4	4	7	8	10	10
Other Europe	7	10	8	9	6	4
All other	1	1	2	1	—	6

REVIEWABLE NEW BUSINESS CASES

	1976				1977	
	first quarter	second quarter	third quarter	fourth quarter	first quarter	second quarter
Total	20	51	64	61	62	93
Industry						
Primary	0	4	3	5	3	6
Manufacturing	14	19	17	17	16	25
Construction and services	6	28	44	39	43	62
Country of control						
United States	6	25	31	28	35	48
United Kingdom	2	7	7	6	5	8
Other Europe	7	16	17	23	15	24
All other	5	3	9	4	7	10

ANNUAL FIGURES

TABLE 2 — OUTCOME OR STATUS

REVIEWABLE ACQUISITION CASES			
	1974 †	1975	1976
Reviewable new cases	102	166	171
Carryover from previous period	—	51	55
Total of above	102	217	226
Total resolved	51	162	159
Allowed	33	116	124
Disallowed	9	21	19
Withdrawn	9	25	16
Carried over to next period	51	55	67
Allowed cases as percent of resolved	65%	72%	78%

REVIEWABLE NEW BUSINESS CASES		
	1975 *	1976
Reviewable new cases	6	196
Carryover from previous period	—	6
Total of above	6	202
Total resolved	—	142
Allowed	—	115
Disallowed	—	9
Withdrawn	—	18
Carried over to next period	6	60
Allowed cases as percent of resolved	—	81%

† Provisions for review of acquisitions came into force April 9, 1974

* Provisions for review of new businesses came into force October 15, 1975

TABLE 3 — COUNTRY OF CONTROL

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976
Total	102	166	171
United States	61	116	109
United Kingdom	21	15	23
Other Europe	15	27	34
Belgium	1	2	1
France	3	6	6
Germany, West	5	2	10
Italy	—	2	1
Liechtenstein	2	2	—
Luxembourg	—	—	3
Netherlands	—	5	—
Norway	—	1	—
Sweden	—	2	9
Switzerland	4	5	4
All other	5	8	5
Australia	2	1	—
Bermuda	—	2	1
Hong Kong	—	1	—
India	1	—	—
Japan	2	2	3
Lebanon	—	—	1
Mexico	—	1	—
Panama	—	1	—
Other	—	—	—
Allowed cases as percent of resolved	%	%	%
United States	64	74	74
United Kingdom	70	76	78
Other Europe	67	57	71
All other	50	33	50

† Provisions for review of acquisitions came into force April 9, 1974

REVIEWABLE NEW BUSINESS CASES

	1975*	1976
Total	6	196
United States	4	90
United Kingdom	—	22
Other Europe	1	63
Belgium	—	1
France	—	9
Germany, West	—	22
Italy	1	9
Liechtenstein	—	2
Luxembourg	—	—
Netherlands	—	2
Norway	—	—
Sweden	—	3
Switzerland	—	8
Denmark	—	5
Finland	—	1
Spain	—	1
All other	1	21
Australia	—	2
Bermuda	—	1
Hong Kong	—	3
India	—	3
Japan	—	4
Lebanon	1	—
Mexico	—	—
Panama	—	—
Other	—	8
Allowed cases as percent of resolved	%	%
United States	—	73
United Kingdom	—	93
Other Europe	—	82
All other	—	95

* Provisions for review of new businesses came into force October 15, 1975

removing a sheet ingot from a mould at the Alcan
Aluminium Ltd. works in Arvida, Quebec.
Photo: Alcan

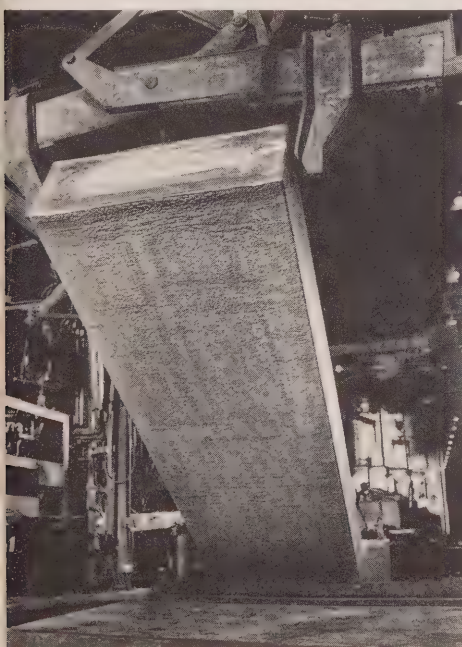


TABLE 4 — INDUSTRIAL SECTOR

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976
Total	102	166	171
Primary	15	18	15
Agriculture	2	—	2
Forestry	3	1	—
Fishing and trapping	—	1	—
Mines, quarries, oil wells	10	16	13
Manufacturing	47	82	93
Food and beverage	5	10	9
Tobacco products	1	1	—
Rubber and plastic products	2	2	3
Leather	1	1	1
Textiles	2	—	2
Knitting mills	1	1	—
Clothing	—	2	1
Wood	5	6	2
Furniture and fixture	—	2	4
Paper and allied	1	2	1
Printing, publishing, and allied	—	3	1
Primary metal	—	3	7
Metal fabrication	2	6	12
Machinery	5	11	4
Transportation equipment	8	6	3
Electrical products	1	9	11
Non metallic mineral products	8	3	9
Petroleum and coal products	—	—	2
Chemical	3	11	15
Miscellaneous	2	3	6
Construction and services	40	66	63
Construction	2	2	2
Transportation, communication, utilities	6	6	9
Trade	18	37	38
Finance, insurance, real estate	10	14	8
Community, business, personal services	4	7	6

† Provisions for review of acquisitions came into force April 9, 1974

REVIEWABLE NEW BUSINESS CASES

	1975 *	1976
Total	6	196
Primary	—	12
Agriculture	—	2
Forestry	—	—
Fishing and trapping	—	—
Mines, quarries, oil wells	—	10
Manufacturing	2	67
Food and beverage	—	3
Tobacco products	—	1
Rubber and plastic products	—	3
Leather	—	—
Textiles	—	2
Knitting mills	—	—
Clothing	—	2
Wood	—	2
Furniture and fixture	1	2
Paper and allied	—	1
Printing, publishing, and allied	—	—
Primary metal	—	5
Metal fabrication	1	10
Machinery	—	5
Transportation equipment	—	1
Electrical products	—	7
Non metallic mineral products	—	3
Petroleum and coal products	—	—
Chemical	—	6
Miscellaneous	—	14
Construction and services	4	117
Construction	—	4
Transportation, communication, utilities	1	10
Trade	1	68
Finance, insurance, real estate	1	10
Community, business, personal services	1	25

* Provisions for review of new businesses came into force October 15, 1975

Welders installing new teeth on the 15 cubic yard dipper of an electric shovel at Gaspé Copper Mines in Murdochville, Quebec.
Photo: George Hunter



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FOREIGN INVESTMENT REVIEW



A quarterly journal on investment conditions in **CANADA** Winter 1977/78 Vol. 1, No. 2



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FOREIGN INVESTMENT REVIEW

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in Canada

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Cover:

Pipeline construction showing a 42-inch gas pipe being
weighted with concrete in readiness to cross a river.
PHOTO: Alberta Gas Trunk Line Co.



Foreign Investment
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FOREIGN INVESTMENT REVIEW

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News briefs

THE ECONOMY

Wage and price controls to be phased out in 1978

The Canadian government has announced it will start phasing out its program of wage and price controls on April 1, 1978. This program, which was designed to combat inflation, was begun in October 1975. The measures included guidelines on wage and salary increases. They also limited profit margins and price increases for all companies with 500 or more employees. As part of its anti-inflation program the government also introduced a gradual slowing down of the growth in money supply and implemented restraints on government expenditures.

In announcing the end of the program, Finance Minister Jean Chrétien said, "the controls on prices, wages and other incomes have contributed greatly to checking the inflationary spiral in our economy. But they should not be a permanent program because the government does not believe in excessive intervention in the marketplace. While controls cannot be removed immediately, phased decontrol will begin... two and one-half years after the program began.

"The further period of control will enable us to make more progress in bringing down the rate of inflation and in reducing inflationary expectations. In the next few months we will amend the Anti-Inflation Act to ensure effective administration of controls during the period of transition and to minimize the risk of a bulge when controls come off. We will also proceed with establishment of an agency to monitor and report upon price and cost developments.

"In the phased process of decontrol beginning next April 14, employees will be free of controls for their guideline years which start after that date. Business will be free of price and profit controls for their fiscal years which begin after that date."

Other policies and targets

Mr. Chrétien also said the government plans to introduce a program of employment credits for private firms, and to continue to spend a total of \$450 million for job creation. As part of the same announcement he said the government would extend by regulation for another year the fast write-off for anti-pollution equipment until 1980.

He added, "for business generally, we are making progress in diminishing unnecessary regulation and filing of statistical forms. The need for efficiency and higher productivity is increasing as we move closer to the hard bargaining of the multilateral trade negotiations."

According to the Finance Minister, the government expects the economy to grow in real terms by 5% in 1978. "I do not want a temporary surge which cannot last and which will start the process of inflation all over again. But I do want sustained growth of between 5 and 6 per cent in order to bring unemployment steadily down."

"The expansion should be led by exports and business investment... Government spending should grow less rapidly, but consumer spending can and should grow in line with the economy as a whole. It is this growth, together with higher exports, which will create the demand for more capital investment."

The drop in the value of the Canadian dollar, Mr. Chrétien noted, "has helped in restoring our competitive position. But this is not a fundamental solution to our problems. A falling exchange rate pushes up many costs and prices in Canada. The answer must be found in getting the rate of inflation down..."

BUSINESS

Federal government program to improve business-government relations

A federal government task force on Canada's business climate — Enterprise '77 — is developing a program to improve relations between the government and Canada's business community. The Enterprise '77 program — started this spring by the federal Industry, Trade and Commerce Department — involved officers of the department visiting more than 5,000 businesses across the country to learn about the problems and concerns of businessmen in Canada.

The information gathered during these interviews is being analysed by the federal government to enable it to become more responsive to the needs and concerns of the business community.

Having initiated Enterprise Canada '77 while he was Minister of Industry, Trade and Commerce, Jean Chrétien set in motion the wheels which would give a new momentum to the Industry, Trade and Commerce Department and saw to it that all other government departments and agencies were made aware of the criticisms levelled by the private sector.

A major complaint of Canadian businessmen was the Industry, Trade and Commerce Department's apparent inability to effectively communicate news of its programs and activities.

Mr. Chrétien's determination to establish close links with the business community enjoys the full support of Jack H. Horner, who succeeded him as Minister of Industry, Trade and Commerce in September and by Anthony Abbott, the new Minister of State for Small Business who has endorsed the 10-point plan for small business formulated by his predecessor, Len Marchand.

Improved government services to business and more information on programs offered by all levels of government to help business are planned. This was prompted by evidence gathered by the task force which showed that businessmen in Canada tend to lack knowledge on the range of assistance available to them through government.

Part of the Enterprise '77 program also included seminars and conferences to bring together businessmen and government officials to discuss the full range of government programs and services with the view that these discussions will be mutually beneficial.

New federal program to help small business

A new federal program to help small business enterprises in Canada has been announced by the country's new federal Minister of State for Small Business, Anthony Abbott. Mr. Abbott, 47, former Minister of Consumer and Corporate Affairs said the federal government plans to reduce the paperwork imposed on small businesses by Statistics Canada and other federal government departments. He also plans to make information about government programs to assist businessmen more easily obtainable.

Another thrust of the program is to bring small firms together with larger ones through subcontracting, franchising, licensing, technology sharing and personnel exchanges. Mr. Abbott has also proposed the establishment of venture development centres to help small businesses obtain financing and other services by bringing together investors, entrepreneurs, technological and government experts and government agencies.

He also said he intends to work with Jack Horner, federal Minister of Industry, Trade and Commerce, to ensure all programs of that department are made available to small business enterprises. Among Mr. Abbott's other aims are co-ordination of existing programs among federal departments and agencies and the cutting out of duplication of services between federal and provincial departments.

Canada has an estimated 600,000 small businesses. The federal government defines a small business for the purposes of this program as one with 100 or fewer employees involved in manufacturing or an enterprise in any other sector employing 50 or fewer.

ENERGY

More land opened for oil and gas exploration

The Canadian government has ended its moratorium on the issuance of oil and gas leases under its jurisdiction, thereby opening up more than 1,300 million acres of land in its northern and offshore areas to oil and natural gas exploration and development.

These and other amendments to Canada's oil and gas land regulations inaugurate a new system for the exploration and development of oil and gas and are designed to provide incentives for industry to intensify the search for oil and gas in Canada's frontier areas. Included in the areas newly opened for exploration are more than 600 million acres — including offshore areas — never before covered by permit or lease, as well as about 20 million acres once held under permits or leases which had not been re-issued.

The amended regulations also provide special options for Petro-Canada, the federal crown corporation involved in oil and gas

exploration and development, to obtain up to 25% ownership in rights of exploration under certain specified circumstances.

One of these Petro-Canada options is directly tied to the net Canadian equity represented by holders of lands in a particular category, and thus oil and gas companies are provided with an opportunity to meet the requirement of a minimum 35% Canadian ownership by increasing either the Petro-Canada or the private Canadian ownership. This is likely to afford Canadian companies a greater opportunity to become involved in the oil and gas exploration and development in frontier regions and is likely to increase Canadian ownership of oil and gas discovered and produced there.

In a Memorandum of Understanding with premiers of the Maritime provinces, the federal government has agreed that the provincial governments of Canada's Maritime provinces will be consulted when applications are made for new exploration rights in any offshore areas of the Maritime provinces — Nova Scotia, New Brunswick and Prince Edward Island.

GOVERNMENT APPOINTMENTS

Chrétien is Canada's new Finance Minister

Jean Chrétien, 43, is Canada's new Minister of Finance. He was formerly Minister of Industry, Trade and Commerce and Minister responsible for administering the Foreign Investment Review Act. In his capacity as Canada's Finance Minister, he is also Governor for Canada of the International Monetary Fund and the World Bank. Mr. Chrétien has previously served, too, as President of the Treasury Board, Minister of National Revenue and Minister of Indian and Northern Affairs. He has been a Member of Parliament since 1963.

Horner new Industry Minister

Jack H. Horner, 50, is Canada's new federal Minister of Industry, Trade and Commerce. He is also Minister responsible for the Foreign Investment Review Act. Before his recent appointment, Mr. Horner was Minister of State Without Portfolio.

He has held a seat in the House of Commons since 1958 and has served as

chairman of the House of Commons Standing Committee on Transport and Communications and has also served on the standing committees on Agriculture and Banking and Finance.

PROVINCIAL REGULATIONS

Ontario's development corporations lower interest rates to small businesses

Loans to small businesses from three Ontario development corporations now carry lower interest rates and increased maximums — changes that are part of an effort to stimulate the province's economic growth. The new rate obtainable from the Ontario Development Corporation and the Eastern Ontario Development Corporation is 2% below their current lending rate — which is 11% on loans up to \$200,000 to businesses with fewer than 100 employees. The interest rates are subject to quarterly review.



Jack H. Horner, Canada's new Minister of Industry, Trade and Commerce.
PHOTO: Matthews Studio

Maximum assistance available through all term loans is increased to \$500,000 to equal the Ontario Business Incentive Loan maximum. The Ontario Venture Capital Loan Program, which assists in the introduction of new technology in industry, has been placed in the same category as incentive loans. This permits up to five years' deferral of principal and/or interest payments.

The corporations' loans are available to secondary manufacturing industries, service industries in support of manufacturing and the tourist industry. Loans are not available to wholesale and retail businesses, resource industries or service industries which are not operating in support of manufacturing. The development corporations' prime goal is to stimulate the economy, particularly in slow growth areas. Maximum loans to businesses in Metropolitan Toronto are therefore limited to \$200,000.

PROVINCIAL REGULATIONS

Ontario abolishes some non-resident land taxes

The government of Ontario now permits non-residents of the province to acquire — exempt from a 20% tax — land defined or used as farm land, recreational land or woodland.

PIPELINE

Alaska Highway route agreed upon by U.S. and Canada

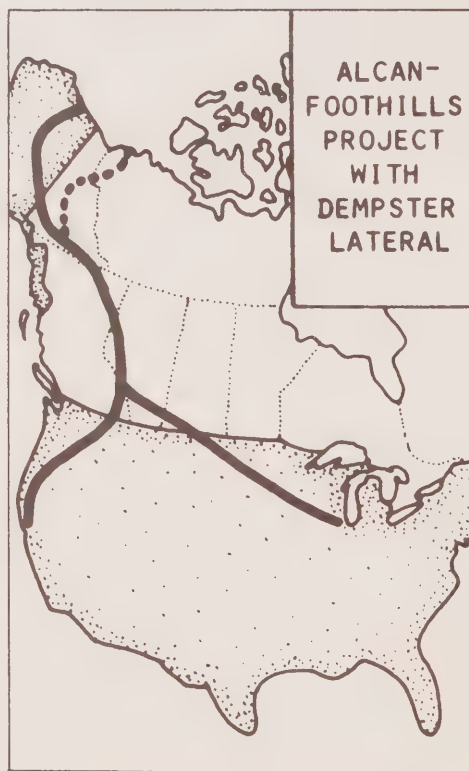
Canada and the United States have agreed on the Alaska Highway route through southern Yukon Territory for a pipeline to transmit Alaskan natural gas to U.S. markets. The project is the largest single private energy project in history. The pipeline from Alaska's Artic gas fields would cross Alaska, follow the Alaska-Canada highway through Yukon and Alberta, then cross Saskatchewan to the United States.

Rejected was the Mackenzie Valley route, backed by some of the major oil and gas producers because Canada's National Energy Board said it presented greater hazards to the environment and to the native peoples of the northern regions. Also rejected was the "all-U.S." El Paso route which would have involved the shipment of liquified gas from Alaska to U.S. ports.

The joint statement on the pipeline route issued by Canada's Prime Minister Pierre Trudeau and U.S. President Jimmy Carter said in part: "While providing Canada the

opportunity to accelerate development of its gas reserves and providing for billions of dollars of additional investment in the Canadian economy this pipeline will stimulate the gas industry in Canada, and together with the early prospect of connecting new sources of supply, will generally enhance the availability of gas to meet market needs.

"The potential to secure increased Canadian, as well as Alaskan supplies, and the magnitude of consumer savings that can be achieved by an all-pipeline route guarantee the superiority of this proposal. We have decided to embark together on this historic project which holds the promise of great benefits to both countries, and which confirms anew the strength of the ties that link us." [See also The giant Canada-U.S. pipeline — the Alaska Highway project p. 5.]



Map, showing the proposed route for a pipeline to transmit natural gas from Alaska through Canada to the United States.

MAP: Supply and Services Canada

TRADE MISSIONS

Two provincial premiers promote trade abroad

The premiers of two provinces, British Columbia and Ontario, recently led trade and

investment missions abroad, one to Europe and the other to Japan. In both cases a primary objective of the mission was to promote a wider appreciation of investment opportunities and, meanwhile, to gain a better understanding of the needs and expectations of investors. This theme of industrial co-operation was extended when the federal Minister of Industry, Trade and Commerce, Jack H. Horner, visited Europe in November.

Premier W.R. Bennett of British Columbia, accompanied by Evan Wolf, his Finance Minister, Don Phillips, his Minister for Economic Development, and senior officials, visited the United Kingdom, Belgium, France and Germany as well as the European Economic Commission and the Multinational Trade Negotiation delegation in Geneva. In a series of discussions with commercial, financial and industrial leaders the mission outlined British Columbia's strategy for development, including its position on foreign investment, resource taxation, exchange of technology and upgrading of resources.

Pointing out the wealth of natural resources available for development in British Columbia, Premier Bennett stressed the special advantages arising from its abundance of energy sources at a time when "the key to the establishment of processing or manufacturing facilities is a long-term supply of energy at predictable prices."

On the other side of the world, Premier William Davis of Ontario met top Japanese and Hong Kong industrialists in one phase of a 10-country investment mission being undertaken by Ontario Minister of Industry and Tourism Claude Bennett. In many of the countries visited, that mission joined forces with trade missions from various Ontario industry sectors to promote investment, industry and tourism.

In Japan, where investment seminars and other meetings provided an opportunity for the mission to assess the interests and concerns of investors as well as to clarify investment policy, Premier Davis noted encouraging prospects for Ontario. In particular, interviews between manufacturers and Ontario officials indicated a strong interest in joint ventures and licensing arrangements. Summing up his tour Mr. Davis said, "Although in many cases it will take some time to see actual contracts signed, plants built or orders processed, we have opened new doors to understanding, co-operation and interest that can only have beneficial results in the long run."

The giant Canada-U.S. pipeline — the Alaska Highway project

by Jeff Carruthers

As early as next year, a loose consortium of Canadian and American natural gas pipeline companies are to begin work on what is already being billed as the largest completely private capital project anywhere, anytime, in the world. The project is a natural gas pipeline system stretching more than 5,000 miles [8,000 kilometers] from the frozen oil and gas field north of Alaska across western Canada and into western and central United States. The Alaska Highway pipeline project, as it is now called, will cost a minimum of \$10 billion by the time it is to start operating in 1983. It could cost much more if costs get out of control, as some economists and environmentalists fear.

To most Americans and Canadians, it is merely a big energy project — the latest in a string of increasingly expensive methods for tapping smaller and smaller incremental quantities of expensive energy during the dying days of what may be called by historians "the age of fossil fuels."

But to the governments of Canada and the United States, who during 1977 jointly studied and negotiated the project now being undertaken, the Alaska Highway pipeline project is many more things. It is first and foremost a great economic stimulus.

In this pipeline project, the Canadian portion alone — the focus of this article — is to cost over \$4 billion. It is expected to generate 100,000 man-years or more in direct and indirect employment — an important side benefit in an economy facing unemployment in excess of 8%.

As a matter of corporate and government objectives, the Canadian portion of the project is to be controlled almost exclusively by Canadians and is to attain 85% or higher Canadian content in goods and services. Debt capital is to be sought, initially, only in Canadian and American capital markets. Preliminary financing forecasts for the project as a whole — based on the assumption that the project would not encounter major, unexpected cost overruns — indicated that capital markets outside North America shouldn't have to be tapped. At all events, whatever happens on the debt side, the equity for the Canadian portion will be exclusively Canadian — at least that's the goal.

Financing could create problems

The concern in some financial circles is that this financing plan could create problems for other government and private projects also seeking funding from the Canadian and U.S. capital markets at the same time. Even if the debt capital is raised entirely in the American

market, there will be a dramatic increase in Canada's foreign debt. However, the carrying of Alaska gas through the cross-Canada pipeline will provide U.S. dollars to service that debt and to pay it off over the lifetime of the project.

The choice of the Alaska Highway project over the rival proposal for a Mackenzie Valley route is an important victory for the two western Canadian companies involved. Alberta Gas Trunk Line Co. Ltd. of Calgary and Westcoast Transmission Co. Ltd. of Vancouver are respectively the largest gas pipeline companies in Alberta and British Columbia and are two of the three largest gas pipeline companies operating in Canada. They operate in Canada's conventional gas and oil treasurehouse and therefore depend on being able to continue moving gas to markets in order to keep their businesses alive and expanding.

Even with recent successes in finding new gas reserves in Alberta and British Columbia in the past two years, the longer-term prospect is for conventional gas (and oil) production in western Canada to fall and for Canada to face domestic shortfalls sometime in the early to mid 1980s in markets traditionally served by domestic oil and gas — unless new sources are brought on-stream from frontier areas, mainly the north. For Alberta Gas Trunk, an important part of the victory associated with winning approval for the Alaska Highway pipeline project is the prospect that Alberta will be able to continue its key role in energy development, transmission and processing even as its resources dwindle, since frontier gas will now move through Alberta on the way to other markets in Canada and the United States.

In many ways, the drive towards maximization of Canadian participation and content in the Canadian portion of the Alaska Highway pipeline project stems more from the corporate players than from the Canadian government, although the government has said it will be watching carefully over corporate shoulders throughout the tendering and construction phases. Also, it will reflect and extend western Canadian industrial development, focused in Alberta and British Columbia, rather than the more traditional development in the financial and industrial centres of central Canada.

This huge pipeline project typifies the problems faced by advanced western nations as they scramble to develop the dwindling amounts of non-renewable petroleum resources and are forced to devote increasing amounts of capital and other valuable resources just to keep pace with society's energy hunger.

For the United States the pipeline will tap 22-24 trillion cubic feet (TCF) of gas associated with the crude oil fields at Prudhoe Bay, along the northern coast of Alaska. Later, Canada will be attaching — at additional costs — its own, smaller gas reserves totalling 5.2 TCF in the Mackenzie Delta-Beaufort Sea region to the east. The Alaskan reserves would fill one year of the current U.S. gas demand; the Canadian reserves, roughly two years of current Canadian domestic gas demand.

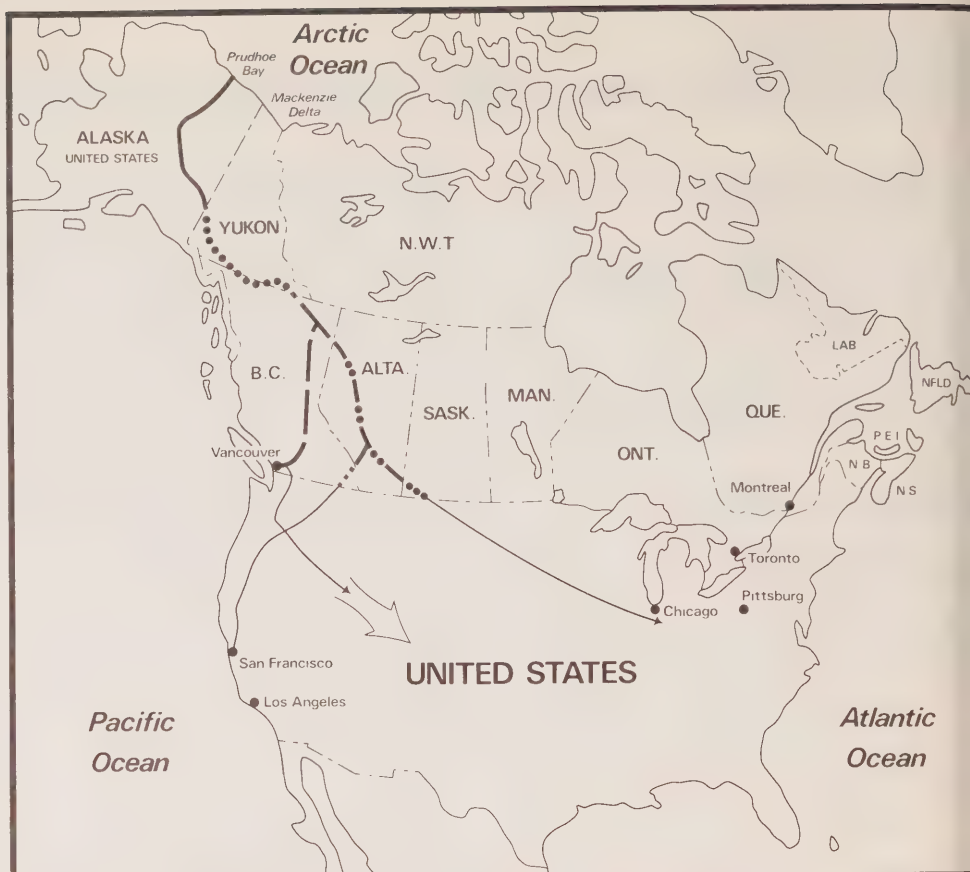
The United States will be paying for new pipeline facilities associated with the Alaska Highway pipeline project a sum greater than the value of all the gas pipeline facilities now in use in the United States. Canada will oversee the spending within its borders of more than \$4 billion during a three to four year period — not including necessary expansions of existing pipelines within Canada — or about 10 times the current total of annual capital spending in the country's entire pipeline industry.

Two projects envisioned for Canada

For Canada, there are really two projects envisioned: first, the cross-Canada mainline to carry Alaskan gas to markets in the lower 48 states; second (probably three to five years later) construction of additional but smaller-diameter spur lines connecting the Mackenzie Delta gas reserves to the mainline in southern Yukon Territory. Under an agreement negotiated recently with the U.S. government, U.S. purchasers of Alaskan gas will pay for part of the spur lines (whenever needed by Canada) and will pay the cost of building a larger-capacity line through Canada to accommodate the later Canadian gas.

The providing of this "option" for Canada to tap into the pipeline later — an option which doesn't have to be exercised if Canada later decides there are cheaper or better ways to get extra energy from the north — was considered essential to win broad public support in Canada for the cross-Canada Alaskan pipeline.

The schedule, as now envisaged, would see final government approvals for the project being granted by the U.S. Congress and the Canadian Parliament late in 1977; necessary contracts to transport the Alaskan gas to U.S. consumers and to ensure implementation of the government-to-government agreement being signed by the pipeline consortium by early 1978; final design of the pipeline and preliminary financing being accomplished in 1979; and construction starting on southern sections as early as 1979, for completion and start-up of the whole system in 1983. At the same time, study and review of the Canadian spur lines would take place through 1979, with construction possibly beginning in 1983 with start-up in 1985.



Alcan Pipeline Project and Connecting Pipelines, (Via Alaska Highway)

- | | | | |
|----------|---|----------|---|
| ————— | Alcan Pipeline Co./Northwest Pipeline Corp. | —••••• | Alberta Gas Trunk Line Co. Ltd. |
| •••••••• | Foothills Pipe Lines (Yukon) Ltd. | •••••••• | Alberta Natural Gas Co. Ltd. |
| — — — — | Westcoast Transmission Co. Ltd. | ————— | Connecting Pipelines in the United States |

MAP: Alberta Gas Trunk Line Co.

Once the government approvals are all granted, the next major stumbling block the pipeline consortium in Canada will face will be the arranging of financing.

The two governments, during their negotiations on the joint project, agreed that the pipeline should be and could be financed completely in the private sector. Many financial experts are skeptical but optimistic.

According to the plan, as filed with regulatory agencies, Foothills Pipe Lines (Yukon) Ltd. (see sidebar on "The Players") would establish operating subsidiary companies responsible for different segments of the pipeline in Canada.

A wholly owned subsidiary would be responsible for the crucial section through southern Yukon, where no other major

pipeline has ever been built and where major technical problems associated with frozen and partially frozen ground are expected. Four other subsidiaries, 51% controlled by Foothills Yukon and 49% controlled by a local pipeline member, would be established to raise the debt and build and operate pipeline segments in British Columbia, Alberta and Saskatchewan (see sidebar on "The Players"). The U.S. partners, led by Northwest Pipeline Corp. of Salt Lake City, would be exclusively responsible for financing, building and operating the trans-Alaska portion and the connecting pipelines in the lower 48 states of the United States.

As previously mentioned, the Foothills consortium (which is responsible for the Canadian portions of the pipeline) plans to have all the equity controlled by Canadians. As proposed, the project would be financed

by companies established solely for this one project. The companies would therefore be lacking in any sources of income until the pipeline starts operating. The debt-to-equity ratio would be 75-25, with the equity portion "pre-committed" to show prospective investors in the debt that the equity would be at risk and would not fall below the 25% level during construction. The initial corporate backers would also absorb up to 30% of the cost overruns, if this should prove necessary.

Incentives to restrain cost overruns

Several incentives are built into the Canada-U.S. pipeline agreement to keep cost overruns below 35%, including a U.S. promise to pay the full "cost of service" — construction, operation, and debt servicing — on a \$440 million spur pipeline from the mainline at Whitehorse, Yukon Territory, to Dawson, 350 miles [536 kilometers] away in Yukon Territory and half way to the Mackenzie Delta gas reserves. The return on equity of the corporate backers will also be tied to their success at minimizing cost overruns.

According to Foothills executives, the debt portion of the project financing will consist of long-term debt (all first mortgage bonds, most of which would be offered for sale in the U.S. capital markets) and short-term bank loans from Canadian and U.S. banks. No unsecured debts would be offered, in part because the consortium expects to be able to obtain lower interest rates from major institutions (insurance companies and pension funds, for example) on secured long-term debt.

Estimates filed with the National Energy Board — the regulatory agency in Canada responsible for such pipeline projects — indicate that Canadian banks would be tapped for approximately \$1.2 billion, most of it being drawn upon in 1981. Another \$800 million would be offered in long-term debt in the Canadian market, again mostly in 1980 and 1981. U.S. long-term debt offerings would involve about \$1.6 billion, with some of it offered as early as 1979, but with the highest concentration in 1981. Total debt, including provision for some cost escalations, would be about \$3.6 billion. The figures assume a one-year delay in actual financing, compared with that assumed in the National Energy Board's report, and are based on use of only a 48-inch-diameter pipeline. Capital costs for a 54-inch-diameter pipeline would be roughly 10% higher.

Plans for issuance of preferred shares, as part of the equity, to U.S. companies using the pipeline have been dropped — in part because the Canadian consortium doesn't feel it needs the U.S. equity and in part because the U.S. companies will have to find equity for the U.S. portions of the project (in Alaska and the lower 48 states). Similarly, a

planned issuance of up to \$285 million in preferred stock in the Canadian market, as part of the equity, has also been dropped as a result of the corporate restructuring which the National Energy Board required for the project. But consortium executives say they are contemplating a possible public share offering of perhaps \$60 million, either by the parent Foothills Yukon company (which will have a 51% equity interest in all the Canadian pipeline operating subsidiaries in the south and 100% in the two Yukon subsidiary companies) or by the subsidiary companies responsible for the Yukon portions of the pipeline.

Total equity would approach \$950 million

In either case, the share offering would be made only in Canada and might be made first to residents of Yukon Territory (who will be disturbed most by the pipeline), including native groups there. Total equity, pre-committed but invested throughout the construction period, would approach \$950 million, including provision for cost overruns, according to the preliminary financing plan filed with the National Energy Board. A more precise and final financing plan is scheduled to be developed early in 1979.

The benefits to accrue from the project will be of two kinds: additional energy supplies, first to the United States, then later to Canada when Mackenzie Delta gas is connected; and economic, both direct and indirect, resulting from such a large capital project.

For Canada, the initial energy benefits will be small: some Alaskan gas will be made available to remote communities along the pipeline route in Yukon, northern British Columbia and northern Alberta. This amount of gas will be replaced by Alberta gas before the pipeline crosses into the United States. Later, when the still-small Mackenzie Delta gas reserves are added (at throughputs of probably 700 million to 1 billion cubic feet a day), the tight gas supply situation in Eastern Canada will be relieved, if only temporarily.

In terms of economic benefits from the pipeline project, the one given the highest billing by the Canadian government is the increase in the number of jobs. Government experts estimate that the modified pipeline project negotiated with the United States should produce nearly 100,000 man-years of employment, both direct and indirect (including the impact of the eventual spur line connections to Canada's own northern gas). Of this total, approximately 28,600 man-years would be in construction, 40,500 in manufacturing, and more than 31,000 man-years created as a result of indirect activities induced by pipeline spending.

Obviously, pipeline construction companies in western Canada will be prime beneficiaries of the corporate and

government intention to use Canadians, as will the many Canadian-based engineering and consulting firms, which will be needed to undertake what the pipeline companies will not be able to handle even with their expanding staffs.

Steel industry to benefit from pipeline project

The Canadian steel industry will be another major beneficiary. Unlike the rival Mackenzie Valley pipeline, which would have used large quantities of steel pipe from the United States and Germany (partly because of Canada's limited capability to produce the special thick-walled 48-inch pipe proposed for that project), the Alaska Highway pipeline project plans to have all the pipe for the Canadian portion — some 1.33 million tons of steel, worth almost \$1 billion — manufactured in Canada. Two companies, the Steel Co. of Canada Ltd. of Toronto and Interprovincial Steel and Pipe Co. Ltd. of Regina, have sufficient combined capacity to make both the low-pressure 48-inch-diameter and the low-pressure 54-inch-diameter pipe, whichever is ultimately selected.

While Canada doesn't have any Canadian-owned suppliers of gas compressor equipment, Foothills Yukon has indicated it is leaning towards using equipment from Westinghouse Canada Ltd., which has designed and would build in Canada a large compressor and which has been given exclusive export marketing rights for the compressor by its U.S. parent. The compression equipment would be the second most valuable capital purchase associated with the project.

Foothills Yukon expects to attain 90% Canadian content in purchases of valves and fittings, and hopes to entice some companies (including Grove Valve of California, a wholly-owned subsidiary of Alberta Gas Trunk) to establish new manufacturing facilities in Canada as a consequence of obtaining business for the pipeline. However, given the emphasis on Canadian content, businesses already established in Canada will probably have the inside track when the project looks for help.

In construction equipment, the target for Canadian content is less than 70%, since the volume of equipment for the project wouldn't be sufficient to warrant establishment of new lines of equipment production in Canada. But adaptation of existing foreign equipment for use in the Arctic would increase Canadian content.

Both the Canadian government and Foothills Yukon indicated they would try to obtain offset arrangements with foreign suppliers as a way of increasing indirect Canadian content in the project. Offsets might include agreements with foreign suppliers to use more Canadian parts in

future sales unrelated to the pipeline project.

It is expected that the direct and indirect demands generated by the project will pick up the current slack in the Canadian economy, rather than overload it. For instance, by the time pipeline construction starts in 1979 and 1980, work on several major petrochemical and oil sands plants in western Canada will be finished and the labour forces and other resources will have been made available for the project.

During the public debate on the Alaska Highway pipeline, the project was often likened to the Canadian Pacific Railway, which, during the last century, brought the Canadian confederation together with a transportation and communication link from east to west. The pipeline promises to bring Canada's north into closer proximity with the developed — and resource-hungry — south.

Technical details of the pipeline project

The proposed \$10-billion Alaska Highway natural gas pipeline will extend 2,754 miles [4,405 kilometers] from Prudhoe Bay, on the north slope of Alaska, through Alaska and along the Alaska-Canada highway through southern Yukon Territory and northern British Columbia, across Alberta, and then in two legs to the U.S. border and the connecting pipelines in the lower 48 states.

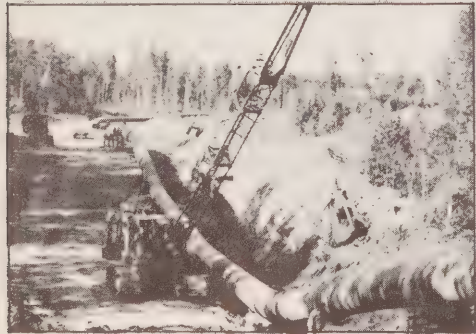
Initially planned as a 48-inch-diameter, buried pipeline operating at a pressure of 1,260 pounds per square inch all the way to the bifurcation point in central Alberta, the project now will be overbuilt from a capacity standpoint from Whitehorse in southern Yukon into Alberta. This is likely to be accomplished by using 54-inch-diameter

pipe, operating at pressure of about 1,120 pounds per square inch, so that maximum throughput on the northern half of the Canadian section is boosted to about 3.8 billion cubic feet (BCF) a day from about 3.2 BCF a day. The overcapacity was agreed to in government-to-government negotiations between Canada and the United States, so that Canadian northern gas could later be connected to the pipeline at Whitehorse and be transported without costly looping (that is, physical expansion) of the pipeline system.

Initially, the pipeline system will carry only Alaskan gas to markets in the lower 48 states at a throughput of about 2.2-2.4 BCF a day. The overbuilding of the pipeline will reserve more than 1 BCF a day for Canadian



Construction of 42" pipe west of Sundre, Alberta

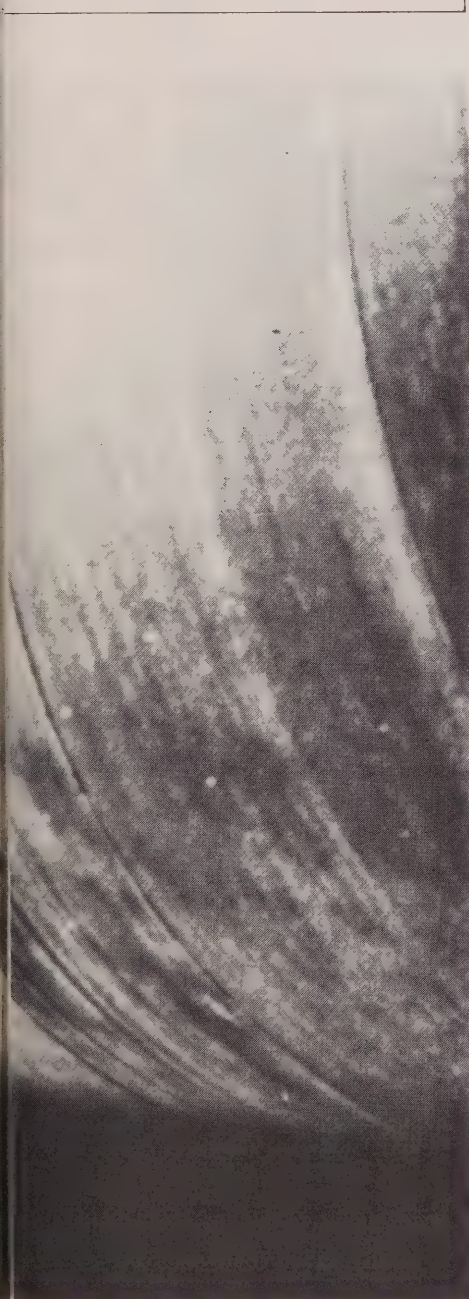


Laying 42" pipe in southeast Alberta



Coating and wrapping pipe for protection against corrosion
PHOTOS: Alberta Gas Trunk Line Co.

if and when that is connected. The Alaskan gas is scheduled to start flowing in 1983, on the assumption that construction on the northern legs in the north and Alaska gets started early in 1981. Northern portions of the pipeline are likely to be pre-built, starting in 1978 or 1979, to allow accelerated exports of Alberta gas (in years before Alaskan gas deliveries begin), perhaps at levels of 800 million cubic feet a day, in exchange for later swaps of Alaskan gas to supply Canadian markets. The building of facilities in the more northern southern areas should help reduce the negative impacts of inflation for the overall project and help the pipeline consortium perfect new pipelining techniques for the tricky Yukon and Alaska sections.



The "players" in the pipeline game

The Alaska Highway gas pipeline consortium was originally the brainchild of two Canadian gas pipeline companies, The Alberta Gas Trunk Line Co. Ltd. of Calgary and Westcoast Transmission Co. Ltd. of Vancouver. Since it was designed to initially transport U.S. gas from Alaska to markets in the lower 48 states, a U.S. partner was recruited, Northwest Pipeline Corp. of Salt Lake City, Utah.

The two Canadian partners originally formed Foothills Pipelines Ltd. to promote an all-Canadian gas pipeline and at first proposed a route along the Mackenzie River Valley. Alberta Gas Trunk held 70% of the shares and Westcoast 30%. Subsequently, a wholly owned subsidiary, Foothills Pipe Lines (Yukon) Ltd. was established to handle the Alaska Highway project through the Yukon. Then, when the Canadian government gave initial approval to the Alaska Highway pipeline (rejecting the Canada-U.S. and the all-Canadian Mackenzie Valley pipeline projects), Foothills Yukon was reorganized to become the lead company responsible for the Canadian portion of the Alaska Highway pipeline project, and Northwest Pipeline took on the responsibility for organizing the Alaskan portion and the connecting facilities, new and expanded, in the United States.

At present, Foothills Yukon is 40% owned by Alberta Gas Trunk and 40% by Westcoast Transmission, with consideration being given to a later public share offering to reduce the respective corporate shares as much as possible, though not lower than 33% for each company. TransCanada PipeLines Ltd. of Toronto, a supporter of the competing Mackenzie Valley pipeline project to tap both Alaskan and Mackenzie Delta gas, joined the Alaska Highway pipeline project and is to take up a 20% equity interest in Foothills Yukon.

The three Canadian corporate members of Foothills Yukon are the country's three largest gas pipeline transmission companies. Westcoast, with \$757 million in gross plant assets at the end of 1976, operates the main gathering and transmission facilities for gas in British Columbia. Alberta Gas Trunk, with \$863 million in gross plant assets (including a growing diversified investment in petrochemicals and pipeline-related manufacturing sectors), operates the main gathering and transmission facilities for gas in Alberta, Canada's largest producer of oil and gas. TransCanada, with gross assets of \$1.6 billion, operates the large-diameter transmission system carrying gas from Alberta into markets in central and eastern Canada, as far east as Montreal. TransCanada and Alberta Gas Trunk are vying for the right to extend Canada's gas transmission facilities into Quebec province and to the Maritimes.

As it is now planned, Foothills Yukon will own and operate the main pipeline in the southern Yukon, stretching some 513 miles [820 kilometers] from the Alaska border to the British Columbia border.

Foothills Yukon will own 51% in subsidiary companies to be established to build the various sections in southern Canada, but actual construction and operation of each segment will be by the other owner of the subsidiary, the local transmission company. For example, in northeastern British Columbia, Westcoast will have the remaining 49% interest in the local subsidiary and will be responsible for overseeing the 439 miles [700 kilometers] of large-diameter pipe there. In Alberta, Alberta Gas Trunk will have the 49% interest in the local subsidiary and be responsible for operating and managing some 630 miles [1,010 kilometers] of large-diameter pipe. And in Saskatchewan, TransCanada will be the active partner overseeing 160 miles [255 kilometers] of pipe to the U.S. border.

For the 105-mile [170-kilometer] leg through southeastern British Columbia, to connect with pipelines going to California, Alberta Natural Gas Co. Ltd. (ANG) will be the active partner in the local subsidiary and will expand its existing pipeline there. ANG currently has gross assets in service of \$75 million.

The major Canadian multinational oil companies with gas reserves in the western Canadian Arctic — Imperial Oil Ltd. (the Canadian Exxon subsidiary), Shell Canada Ltd., and Gulf Oil Canada Ltd. — had backed the rival Mackenzie Valley pipeline project and have been effectively shut out from equity participation in the Canadian portion of the Alaska Highway pipeline project. The two original backers of Foothills — Alberta Gas Trunk and Westcoast — want to keep equity control in Foothills Yukon in the hands of Canadian-owned companies.

On the U.S. side, Northwest (operator of a regional gas transmission system in northwestern United States) has recently been joined by the major U.S. backers of the rival Mackenzie Valley pipeline project: Columbia Gas Transmission Corp., Michigan Wisconsin Pipe Line Co., Natural Gas Pipeline of America, Northern Natural Gas Co., Pacific Gas Transmission Co., Pacific Lighting Gas Development Co., Panhandle Eastern Pipeline Co., and Texas Eastern Transmission Corp.

The U.S. participants will be responsible for the 731 miles [1,170 kilometers] of pipeline in Alaska, and all of them would like to receive some of the Alaskan gas for their own distribution systems in the lower 48 states.

Upturn in capital spending and FIRA cases

by Edward M. Cape

It now seems almost certain that the upturn in business capital spending in Canada, which began in the fourth quarter of 1976 (see Chart 1), will continue through 1977 and into 1978 — and may well accelerate. So far, from the third quarter of 1976 to the second quarter of 1977, the rate of advance has been moderately strong — 2% per quarter in “real” terms, equivalent to an annual rate of 8%.

... trends in FIRA cases may possibly prove... to be sensitive indicators... of trends in capital spending

Meanwhile, new applications for review under the Foreign Investment Review Act (FIRA) have shown a much sharper upturn (see Chart 2). Acquisition cases soared from less than 10 per month in the first quarter of 1976 to almost 30 per month in the third quarter of 1977. New business cases, which had levelled off at about 20 per month in late 1976 and early 1977, also soared to about 30 per month in the second and third quarters of 1977.

There has not yet been enough experience of trends in FIRA cases to warrant any firm conclusions about the extent to which they may reflect — or indeed forecast — trends in business capital spending. Acquisitions of Canadian businesses by non-Canadians became subject to the Foreign Investment Review Act on April 9, 1974. Since then, the trend in acquisition applications has been, on the whole, upward; the annual figures for the three years 1974-76 were 102, 166, and 171. But there was what appeared to be a “cyclical” slump and recovery in 1975-76.

Historical evidence suggests that foreign acquisition activity in Canada is likely to show “cycles” which roughly coincide with those of capital spending and overall business activity. Since the Second World War, at any rate, foreign acquisition activity in Canada has usually, though not always, displayed a cyclical pattern similar to that of general business activity. The correlation has been greater in timing than in amplitude. (See G.A. Edwards, “Historical Perspective on Acquisition Trends”, *Foreign Investment REVIEW*, Autumn 1977; and same author, *Foreign Acquisition Activity in Canada: A Long-Term Perspective*, FIRA Paper No. 1, February 1977.)

The establishment of new businesses (as distinct from the acquisition of existing businesses) by non-Canadians became subject to review under the Foreign Investment Review Act on October 15, 1975. But investors were well aware many months earlier that the provisions for review of new businesses would eventually come into effect, and the date of their coming into

effect was announced July 18, 1975. There is therefore every likelihood that many investors, prior to October 15th, speeded up their plans to establish new business — and that in consequence the number of FIRA new business cases was abnormally low for at least half a year after October 15, 1975. But the number was rising quite rapidly towards more-normal levels.

The flattening out of the trend in FIRA new business cases in late 1976 and early 1977, at about 20 per month, followed by sharply higher levels of about 30 per month in the second and third quarters of 1977, seems to suggest a “cyclical” pattern and one which roughly coincides in timing with that of business capital spending. Further experience with trends in FIRA cases may possibly prove them — particularly the new business cases — to be sensitive indicators, perhaps forecasting indicators, of trends in capital spending. They may also prove to be indicators of trends in the confidence that foreign investors feel towards Canada as a place to invest.

... applications for review under the Foreign Investment Review Act (FIRA) have shown a much sharper upturn

We should not, of course, read too much as yet into the sharpness of the upturn in FIRA new business cases as an intimation of impending strength in capital spending. Neither, however, should we rule out the possibility that a meaningful signal has been flashed regarding prospective strength in business capital spending.

What are some of the other factors in the outlook for business capital spending?

The Conference Board in Canada, one of the most respected forecasting groups in the country, expects “real” business spending to rise 7% between the second quarter of 1977 and the second quarter of 1978. This would be roughly the rate of increase that has occurred since the current upturn began. The projected 7% increase is expected to be made up of a 10% increase in machinery and equipment outlays and a 4% increase in non-residential construction.

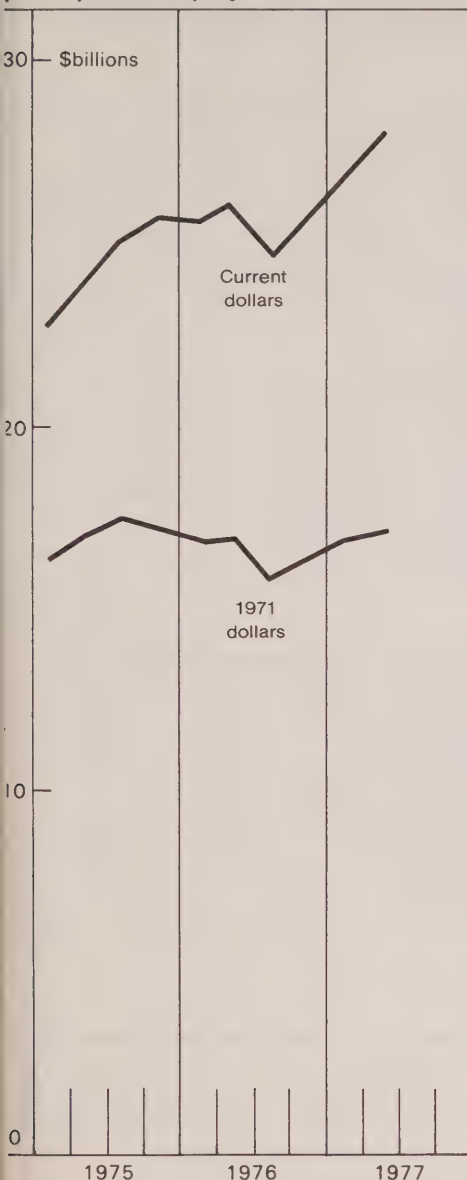
Most other economic forecasters in Canada are expecting smaller increases than the Conference Board. But a few economists, including this writer, expect larger increases.

The Canadian Government's mid-1977 survey of capital spending intentions indicated that business enterprises planned to spend 13.3% more in current dollars in 1977 than they spent in 1976. If these reported plans are taken at face value, and if account is taken of evidence that the inflation rate for capital goods is unlikely to

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CHART 1

BUSINESS CAPITAL SPENDING IN CANADA (quarterly, seasonally adjusted at annual rates)



Source: Statistics Canada, *National Income and Expenditure Accounts*, Second Quarter, 1977.

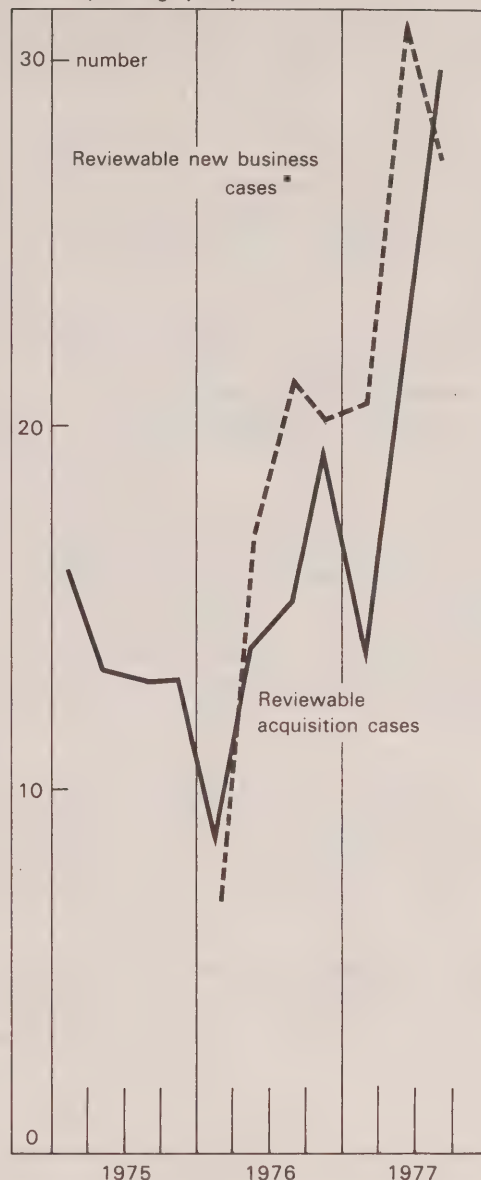
exceed 7.5% in 1977 as a whole, the implication is that the year-over-year increase in business capital spending will be about 6% in real terms.

In view of what the national income and expenditure accounts show to have already occurred in the first half of 1977, the implication of a 6% increase for the full year over 1976 is that business capital spending in real terms will be 7.7% higher in the second half than in the first half of 1977 — equivalent to an annual rate of increase of over 15%.

A few of the cautionary factors in the outlook ought to be noted — though not

CHART 2

NUMBER OF NEW FIRA CASES (monthly average per quarter)



* Provisions for review of new businesses came into force October 15, 1975.
Source: Foreign Investment Review Agency.

necessarily given great weight.

Some businessmen may have been building into their statements of intended capital spending a higher assumption about the inflation rate than is warranted by current evidence. That is, if businessmen were assuming an inflation rate of, say, 9% in capital goods, their statements of intentions to increase current dollar spending by 13.3% (as reported) would have meant they were intending to increase "real" outlays by about 4.5%. It is difficult to see how businessmen could have been assuming anything more than a 9% inflation rate in capital goods when the actual rate during the first half of 1977 was averaging less than 7%. In any event,

even a "mere" 4.5% increase in real spending for the full year 1977 over 1976 would mean that the second-half figure would have to be about 6% higher than that for the first half of 1977 — an advance at an annual rate of about 12%.

Secondly, excess capacity exists in some industries and this, according to some analysts, makes a significant capital spending upturn unlikely. The same type of argument has been made during every recession; yet every upturn in capital spending has begun and has gathered momentum during a period of considerable excess capacity. In the third quarter of 1977, according to government

Undistributed profits... averaged 17% higher in the first half of 1977 than in the last half of 1976

estimates, Canadian industry was operating at 83% of capacity, with the ratio somewhat higher in manufacturing and somewhat lower in mining. However, as best as could be determined, only about one-third of all business firms were actually operating significantly below capacity; fully two-thirds of all firms were operating at, or only slightly below, capacity. Another source of evidence, a Conference Board survey in September, indicates that only 28% of respondents felt that excess productive capacity was a factor inhibiting their company's capital spending.

Thirdly, there are questions about the amount and quality of corporate profits. Undistributed profits, adjusted for seasonal factors, averaged 17% higher in the first half of 1977 than in the last half of 1976. But much of this sharp increase was due to inventory profits resulting from the decline in the Canadian dollar. Other doubts about the quality of profits are the well-known ones related to the absence of adequate inflation-accounting. At any rate, most analysts expect the uptrend in profits to continue, but to be moderate. The Conference Board, for

A profit increase of about 20% in 1978 would seem to be well within range

instance, forecasts a profit increase of 11.2% in 1978 over 1977 — a rather small increase in "real" terms.

This may not be entirely consistent with a set of business opinions reported by the Conference Board in September. The survey question enquired about "the expected financial position of their firms in six months time": 54% of respondents expected an improvement in their company's financial position, 44% expected no change, and 2% expected a deterioration. This would seem to

intimate a larger increase in overall profits than the Conference Board is forecasting.

This writer expects a much larger profit increase than 11% in 1978 — something more in the order of 20%. Most forecasts of Canada's total output of goods and services (GNP) expect it to be up in 1978 by about 5% in real terms. Since little or no real growth is expected in output of government and community services, output of the commercial sector is likely to be up more than 5% — say 7%. A 7% volume increase coupled with, say, a 7% price increase would mean a 14% value increase in the commercial sector's output. Profit is likely to increase more than value of output, especially during the early stages of a recovery, when underutilized capacity is being employed more effectively and productivity gains are relatively large. A profit increase of about 20% in 1978 would seem to be well within range. An increase of this size would probably not, in these circumstances, exceed the profit guidelines of the Anti-Inflation Board, which generally allows profit increases related to production and productivity gains.

The budget was conceived as essentially a stimulus to business activity...

Although high profits (and cash flows) have historically proved to be the strongest of the supports to higher business capital spending, inadequate profits too may sometimes spur some business firms to invest more — as a necessary route to higher earnings. As well, a good deal of capital spending in Canada is related to the need to develop new supplies of natural resources, and this need is not closely related to short-term trends in profits.

Retained profits are, of course, only part of the cash flows available to business firms for capital spending. The federal budget of March 31, 1977, was designed to inject some \$800 million into business cash flows and some \$400 million into other tax relief — and to have its main impact in the second half of the year. The budget was conceived as essentially a stimulus to business activity, and there is every reason to expect that the intended impact will occur, more or less on schedule.

A fourth cautionary consideration is the fact that many of the investments planned are for "frontier" and "start-up" situations. This raises questions about how likely they are to proceed on schedule. Frontier and start-up projects are notoriously liable, despite the best-laid plans, to encounter problems and delays. But delays rarely result in cancellation; the spending trend is correspondingly increased at a later stage.

One of the brighter signs in the outlook for business capital spending is the breadth of the increases that seem to be in prospect. The planned increases for 1977, as indicated in the mid-year review, are 26% for oil and gas, 18% for mining, and 18% for utilities. Most heartening of all are the indications of recovery — and breadth of recovery — in manufacturing expenditures.

Capital outlays in chemicals and paper, which have been strong for several years, continue to show strength, with planned increases of almost 21% in each of these industries for 1977. But "all other"

Most heartening of all are the indications of recovery... in manufacturing expenditures

manufacturing, where "real" outlays declined in the past two years, also shows an average prospective increase of almost 21% in current dollars. Among the notable planned increases for 1977 are those for transportation equipment (85%), tobacco products (50%), primary metals (25%), food and beverages (24%), and machinery (21%).

There is another encouraging factor in the capital spending outlook. Two successive government surveys of business spending intentions showed that businessmen revised their plans for 1977 upward by 2% in May-June 1977 over November-December 1976.

Meanwhile, surveys of opinions by the Conference Board have shown that businessmen in Canada have been growing more optimistic about a moderation of inflation. In other words, businessmen may be revising their spending plans upward in real terms.

A third encouraging consideration is that any uptrend in capital spending is itself a stimulus to further increases. As businessmen become increasingly assured that the uptrend is firmly established and likely to continue, they undertake expenditures which they may not have planned to undertake so soon.

A fourth encouraging factor, and a very important one, is the firmness and smoothness of the U.S. business recovery. These characteristics of the U.S. recovery promise to make it also a relatively long one. For most Canadian exporters, the strength of the U.S. economy far outweighs in importance the weakness of some overseas economies. It also augurs well for a recovery of those economies.

All in all, while the spending uptrend implied in the surveys of intentions may perhaps not materialize precisely as scheduled, the rate of advance will almost certainly exceed, sooner or later, anything indicated in recent surveys and most forecasts. It would not be surprising, at least to this writer, to see business capital spending in Canada increasing, before long, at a fairly strong pace of about 3% per quarter, or 12% a year, in real terms.

MID-1977 INDICATIONS OF CAPITAL SPENDING INCREASES 1976-77

	Percent increase, 1976 actual to mid-77 estimate	Percent revision from preliminary estimate to mid-year estimate
Business enterprises (including government-owned businesses)	13.3	2.0
Manufacturing	20.5	4.5
Pulp and paper	20.8	0.6
Chemicals	21.1	1.2
Other manufacturing	20.3	6.5
Petroleum and gas	26.1	4.1
Mining	18.1	1.1
Utilities	17.8	0.6
Electrical power	26.1	2.3
Telephone and telegraph	9.3	-1.8
Other utilities	8.3	-1.2
Housing and social capital		
Housing	5.2	4.7
Institutions (schools and hospitals, etc.)	-0.7	-1.3
Government departments		
Federal	4.8	-1.9
Provincial	3.5	-4.1
Municipal	20.5	7.1
Total private and public	10.5	2.3

Source: Statistics Canada, *Private and Public Investment in Canada, Mid-Year Review 1977*.

Regional economic development — a Canadian priority

One of the traditional principles of federalism in Canada has been that the economic strength of the nation should be used to strengthen the less economically prosperous regions of the country. In 1969, the Department of Regional Economic Expansion (DREE) was established to channel and direct federal government efforts to this end.

Industrial development is a key element in Canada's regional development strategy

The primary aim of DREE is to ensure that development opportunities existing in Canada's slow growth regions are effectively pursued so as to improve employment and general economic conditions. Industrial development is a key element in Canada's regional development strategy. More investment in industry in the slower growth regions is an essential ingredient in developing or expanding economic activity. The federal government is doing this through direct incentives in the form of grants to private investors and by improving the local infrastructure — including industrial parks and related supportive services — in order to offset locational disadvantages.

The principal mechanisms by which regional development policies are pursued in Canada include the General Development Agreement and the Regional Development Incentives Program

The principal mechanisms by which regional development policies are pursued in Canada include the General Development Agreement (GDA) and the Regional Development Incentives Program (RDIP). From the investor's standpoint, both mechanisms are of interest because they can provide assistance, either directly or indirectly, for private investment.

The General Development Agreement (GDA) approach evolved as a DREE mechanism during a departmental policy review in 1973 and 1974. In that review it was recognized that each region of Canada — indeed each province — has its unique set of economic and social circumstances and development opportunities. Special measures, devised in relation to each province and circumstance, has been the government's approach to tackling these challenges.

A General Development Agreement has been signed between the federal government and each Canadian province except Prince

Edward Island, where a similar type comprehensive development agreement has been in effect since 1969. Specifically, each GDA gives a statement of mutually agreed upon federal-provincial objectives and sets out a broad strategy on the basis of an analysis of the province's socio-economic circumstances. The agreement also outlines guidelines and criteria for the implementation of the strategy through the signing of subsequent subsidiary agreements, which define specific development opportunities.

To date, more than 70 subsidiary agreements have been signed under the GDA mechanism. These agreements call for a commitment of over \$2.3 billion of public funds, of which the federal government's share is more than \$1.4 billion.

The wide range of activities under the GDA framework is a direct reflection of the diversity of the economic circumstances and opportunities in Canada. The inherent flexibility of the GDA approach is well illustrated by the diversity in the nature of the subsidiary agreements signed to date. Some deal with development opportunities in a given sector, such as the forestry agreements in New Brunswick and Newfoundland or cover wide geographic areas, such as with the northlands agreements in Ontario and the Western provinces — Manitoba, Saskatchewan, Alberta — or address a particular industrial initiative, such as the steel-related agreements with Quebec and Saskatchewan.

While the direct creation of jobs in areas of high unemployment is and must remain an important DREE goal, subsidiary agreements seek to go beyond such immediate issues. They tend to address themselves to removing impediments to self-sustainable economic growth, while taking advantage of unexploited economic opportunities.

Another area of significant progress under the GDA framework has been the ongoing process of communication, co-operation and co-ordination which has developed between DREE and other government departments at both the provincial and federal levels.

More investment in industry in the slower growth regions is an essential ingredient in developing or expanding economic activity

A vital adjunct to the General Development Agreement is the Regional Development Incentives Program which is designed to stimulate increased manufacturing investment and employment in the slow-growth regions of Canada. The program is applicable in all of Newfoundland, Nova Scotia, New

Brunswick, Prince Edward Island, Manitoba and Saskatchewan, most of Quebec, as well as in portions of Alberta, British Columbia and Ontario.

Financial incentives including cash grants and loan guarantees are eligible for development incentives and loan guarantees

Financial incentives including cash grants and loan guarantees are available to foreign as well as Canadian investors. These incentives are offered to encourage entrepreneurs to consider locating in the regions designated for incentive assistance and to enable industries already established in these regions to expand or modernize.

More than \$585.5 million has been committed in regional development incentives since inception of the program in 1969. These grant offers are expected to generate total capital investment in eligible assets of about \$2.8 billion. Approximately 124,000 new jobs are expected to be created when all facilities which have so far received assistance are brought into commercial production.

Most kinds of manufacturing and processing activities are eligible for development incentives and loan guarantees.

The major exceptions are certain types of initial processing — such as petroleum refining and pulp and newsprint production; other types of initial processing — such as smelting and food processing — are eligible. Key parts of the service industries, including distribution warehouses and freight handling facilities, can qualify for loan guarantees.

Expansion and modernization of existing facilities, as well as establishment of new ones, can qualify for incentives.

The amount of a grant depends upon such factors as the location of the project, its size, the type of project being undertaken, its economic contribution to the region and the financial need of the applicant.

Many international entrepreneurs have invested in Canada's designated regions

The government gives consideration to such factors as the probable rate of profit on the same kind of project in another location and to the rate of return from alternative projects open to the investor. For the establishment of industry, grants are calculated on the basis of capital costs and the number of new jobs provided, up to a maximum of 50% of capital employed or \$30,000 per job. For plant expansions or modernizations, only capital costs are taken into account.

Many international entrepreneurs have invested in Canada's designated regions, for example: International Business Machines of the United States, SKW of West Germany, Sekine of Japan, ICI Ltd. of Britain, Leroy-Somer of France, Pagnossin of Italy, Wihuri of Finland, McKay of Australia and Michelin of France.

Significant projects now underway with RDIA assistance include a \$7 million plant in Moncton, New Brunswick undertaken jointly by Dow-Corning-Owens of the United States and Duplate of Canada to produce fibreglass insulation products, and a \$16 million plywood facility of Georgia Pacific of the United States at McAdam, New Brunswick.

In Quebec, Moteurs Leroy-Somer S.A. has undertaken construction of a \$7 million plant at Granby to manufacture electric motors.

Projects in Western Canada include the West German-owned Henniger Malting plant at Biggar, Saskatchewan, while in Winnipeg, Manitoba, a facility to produce computer systems equipment is being undertaken by Burroughs Business Machines Limited, of the United States.

In countries outside Canada, further information on DREE and its programs can be obtained from the Commercial Section of the nearest Canadian Embassy or Canadian High Commission, or by writing to: Director General, Industrial Incentives, Department of Regional Economic Expansion, 161 Laurier Avenue West, Ottawa, Canada K1A 0M4.

Some DREE-assisted ventures involving international entrepreneurs

- **Suddeutsche Kalkstickstoffe-Werke A. G. (S.K.W.)** of Trotsberg, West Germany opened a \$50 million subsidiary — **S.K.W. Electro-Metallurgy Canada Ltd.**, to manufacture ferrosilicon and silicon metal alloys at Bécancour, Quebec. A total of 220 jobs were created and DREE incentive assistance amounting to \$5,970,000 was provided for construction of the plant.
- **Moteurs Leroy-Somer Canada Ltée** received a \$1,987,000 incentive offer from DREE to build a \$7.5 million plant at Granby, Quebec. The plant manufactures monophase and polyphase electric motors that can deliver up to 200 horsepower. When in full operation, the facility will employ about 400 workers. Moteurs Leroy-Somer Canada Ltée is controlled jointly by Moteurs Leroy-Somer S.A., headquartered in Angoulême, France and the Quebec Industrial Development Corporation. The French company owns a 60% interest in the Granby facility.
- **Henniger Malting (Saskatchewan) Limited**, a subsidiary of Henniger-Brau KGaA of Frankfurt, West Germany has established a \$12.4 million plant at Biggar, Saskatchewan to process malting barley. The facility employs about 50 workers. DREE incentive assistance totals approximately \$1.3 million.
- **The Merloni Group** has accepted a DREE incentive offer of \$2,657,500 to establish a facility to manufacture compact household refrigerator units. The company will have as its main shareholder the Merloni Finanziaria S.P.A. company, a major Italian manufacturer of domestic appliances. The second shareholder will be the Quebec Industrial Development Corporation. The project is expected to create 179 jobs and generate investments of about \$11 million. Commercial operations are scheduled to start early in 1979.

Some construction projects supported by Canada's Department of Regional Economic Expansion. This department encourages economic development and expansion in the slower growth areas of the country. PHOTOS: Department of Regional Economic Expansion



The joint-venture alternative for investing in Canada

by Frank Swedlove

Multinational companies that want to set up operations in Canada appear increasingly to be aware that they can gain more business advantages in going the joint-venture route with Canadian partners than in going the sole-ownership route. They also realize that, in doing so, they can help serve Canada's interests too.

Canada, unlike some other countries, does not insist that foreign direct investments can take place only in joint ventures with local interests. But the Canadian government does regard joint ventures as one of the means of improving the benefits that foreign investment brings to both host country and investors.

In the Foreign Investment Review Act, for example, one of the five criteria for determining whether a proposed investment is of "significant benefit to Canada" is "the degree and significance of participation by Canadians."

The term "joint venture" can be defined in different ways. It can range from the one extreme of a loose licensing agreement to the other extreme of a new and separate corporate structure that has its own management and independent policy. The kinds of joint ventures discussed here are those which seem the most relevant because they are the most broadly realistic alternatives to wholly owned subsidiaries — that is to say, the kinds of joint ventures in which each partner has both an equity participation and a voice in policy.

Some of the advantages that joint ventures offer investors are the following:

First, the use of joint-venture arrangements with Canadian firms allows, in many cases, an easier and more effective introduction into Canada, a better understanding of the economic and cultural environment, and most important, higher profits.

Secondly, a firm may enter a joint venture arrangement if it has limited capital resources and desires rapid growth. The joint-venture arrangement can help it expand into more markets in a shorter time.

Thirdly, firms may wish to obtain the complementary skills or techniques of others. A joint venture may bring benefits to both when, for instance, one firm is strong in technology, the other in marketing. An example of this is the joint ownership of Sanyo Canada Ltd. by the Sanyo Electric Trading Company Limited of Osaka, Japan, and Magnasonic Canada Ltd. of Montreal. While the Japanese firm supplies the technology and expertise for the assembly of television sets and stereo assemblies in Canada, Sanyo Canada Ltd. uses Magnasonic's Canada-wide distribution network to market the Sanyo line.

A fourth and increasingly important reason for joint ventures is the need for risk sharing in large capital projects. In the recent years of growing economic and political uncertainty, it has become more and more difficult for companies to estimate returns to their investment projects, especially over the life of the project. Companies find it more prudent to share and spread the risks with several partners.

Also, in a large and high-risk venture, they may find it easier to find financing for a part of the project than for the whole project.

In addition to these reasons which are valid in many countries, there are joint-venture advantages which are particular to the Canadian scene. One such advantage relates to the Foreign Investment Review Act. As noted, one of the five criteria for determining whether a proposed investment offers significant benefit to Canada is the degree and significance of Canadian participation in the enterprise. While the other four criteria are also relevant in assessing significant benefit, a joint venture in which the Canadian partner has a significant equity and management participation obviously starts with a better chance of being looked upon favourably than a corresponding wholly owned subsidiary.

In a few "key" sectors in Canada in which participation by foreign-controlled firms is restricted, a foreign-controlled firm that may nevertheless want to enter that sector may seek out a Canadian partner as a means of entering. For instance, foreign investors have used joint ventures as the means of entering the uranium mining sector, in which it is Canada's policy to limit the degree of non-resident ownership.

The size and complexities of the Canadian market may also be factors that encourage joint ventures

The size and complexities of the Canadian market may also be factors that encourage joint ventures. In physical size, Canada is the second largest country in the world, encompassing almost four million square miles [10 million square kilometers]. But the population is only a little over 23 million. The great majority of Canadians live within a narrow strip along the U.S. border, which is about 4,000 miles long [6,400 kilometers]. Unlike the case in most other countries, the population is very diverse. Forty-eight per cent of Canada's population are of British origin, 30% are of French origin, and the remaining are made up of many ethnic groups, the predominant ones being German, Ukrainian, Dutch, and Polish.

Both French and English are official

languages in Canada. The problems of serving a market so spread out and diverse — and serving it in two languages — may be very difficult for a foreign investor not familiar with the Canadian scene. Difficulties may be especially great in such matters as distribution, marketing and staffing.

Also, Canada has a federal system of government with a sharing of powers between the federal and 10 provincial governments. In addition, there are municipal governments with whom business firms must also deal. Since the contacts between governments and business have tended to become more extensive, it may be a distinct advantage to have a partner who is aware of the roles and responsibilities of each level of government and many of the legal and practical intricacies involved in dealing with the various governments.

Of the 166 new businesses [under the FIRA cases]... joint-venture arrangements... accounted for almost one-fifth of the total

Joint-venture agreements as a means of entering the Canadian market have been increasing. Of the 166 new businesses allowed to be established under the Foreign Investment Review Act in the fiscal year ended March 31, 1977, joint-venture arrangements between a foreign firm and a Canadian partner accounted for 29 or almost one-fifth of the total. The heaviest concentration of joint-venture activity was in the primary sector, where a majority of the new businesses — five out of eight — were joint ventures. Meanwhile, 18% of the new business cases in the manufacturing sector and 13% in the service sector were joint ventures. It is interesting that, for the new business cases in the manufacturing sector the average planned investment of joint ventures was over twice that for all new business cases — \$3.3 million compared with \$1.4 million. This reflects one of the main advantages of joint ventures — the ability to take advantage of larger investment opportunities without having to take on the total risk.

The reasons for entering joint-venture arrangements in Canada appear to vary to some extent according to the sector.

In mining, it seems that the majority of the joint ventures arise predominantly out of a need for huge capital spending, increased risk, and increased desire to spread the risk. Very few companies are able and willing to undertake alone the financing necessary to start up even a medium-sized mine. This is especially true nowadays when mining companies must search farther and farther afield for new discoveries — with more than proportional increases in cost. Also, by

splitting costs in each project, a mining company can participate in more projects and thus reduce the likelihood that its customers or processing operations will be inconvenienced by interruptions of supplies. This policy of "not keeping all your eggs in one basket" allows the mining company more effectively to guarantee a steady stream of output — and this, of course, is an advantage in obtaining and holding customers.

Owing to the high costs of establishing a mine and the complexity of the financing, the agreements for joint ventures are precise, detailed, and lengthy. Matters such as cost and output sharing, quality levels desired, the disposal of assets, and the structure of management are clearly stated in the agreement, leaving little room for the possibility of later conflict over policy. Management is often the responsibility of the largest partner — or may be left to an independent management group who are experts in the managing of mines. With mining companies becoming increasingly familiar with joint-venture agreements, subsequent conflicts are becoming increasingly rare.

Most of the largest recent mining ventures involve some combination of Canadian and international firms

Most of the largest recent mining ventures involve some combination of Canadian and international firms. Some examples from among the largest operating mines are in the iron ore sector — Wabush Mines, which is owned by Steel Company of Canada and Dominion Foundries and Steel Co. (both of Canada) and a consortium of five American firms and one Italian firm; the Iron Ore Company of Canada, which has eight separate owners; and the Hilton Mine, which is 50% owned by Steel Company of Canada and 25% by Jones and Laughlin Steel Corporation and 25% by Pickands Mather and Co., both of the United States. Also there are several large joint venture arrangements in the exploration and development of oil and natural gas. For example, in Alberta, the Syncrude oil sands project has Canadian and American interests, while the Primrose Oil Sands Research Project has Japanese and Canadian interests.

In pre-manufacturing processing sectors, a frequent reason... is to share the output of the new business

In pre-manufacturing processing sectors, a frequent reason for joint ventures is the desire by the partners to share the output of

the new business. For example, the petrochemical joint venture in Sarnia, called Petrosar Limited, is a partnership of Polysar Limited, Union Carbide Canada Ltd., and DuPont of Canada Ltd., all of whom will obtain petroleum by-products from the plant. Another example is the establishment of Maple Leaf Monarch Co. which is opening a new vegetable-oil mill and refinery. Its two parent companies, Maple Leaf Mills Ltd. and Monarch Fine Foods Ltd. (a subsidiary of Lever Bros. Ltd.) will take up most of the oil production from the new plant for their consumer food products divisions. In the processing of minerals, a plant at Port Cartier, Quebec, will provide pelletized iron ore concentrates to its principal owners — Sidbec (a Quebec-government-owned agency), British Steel Corp. Ltd., and Quebec Cartier Mines Co. (a subsidiary of U.S. steel) — for

In the manufacturing sector... joint ventures are usually entered into... to obtain a certain skill from another firm

the production of steel. In all these joint ventures, the partners have integrated "backwards" in order to ensure themselves a source of supplies for their major operations.

In the manufacturing sector, those joint-venture considerations that are important in mining and processing — huge capital costs, the spreading of risk, and the ensuring of inputs — are usually not significant. Rather, joint ventures are usually entered into by one manufacturing firm in order to obtain a certain required skill from another firm. It appears that a large majority of manufacturing joint ventures in Canada are ones in which a foreign manufacturer supplies the technology and expertise for the production of the goods while the Canadian partner offers management assistance or an established distribution system. An example of this has already been mentioned — the case of Sanyo Canada Ltd. of Montreal. Another example is a joint venture between Canada Packers Ltd. of Toronto and Spillers Foods Ltd. of England — called Spratts Pet Foods Canada Ltd. The British firm is a major seller of pet food in the United Kingdom and has offered its formulas and production expertise to Canada Packers, who can supply both the required production and a nationwide distribution network. A third example is the establishment of Fuji Dyeing and Printing Limited of Trois-Rivières, Quebec, a 50-50 arrangement between Flam Textiles Co. Ltd., one of Canada's largest textile importers and distributors, and three Japanese textile companies who can supply financing and technology.

For the foreign partner in a manufacturing joint venture, the above kinds of arrangement allow quicker entry into the markets — including readier acceptance by

retailers because of the existing reputation of the Canadian firm. For the Canadian partner, the joint venture gives the firm the latest technology and know-how and reduces the chances of a foul-up in the start-up of production.

In the service sectors, where there have been fewer cases of joint ventures, no single reason can be identified as the predominant one in encouraging joint ventures.

In retailing in Canada, where there have been several joint ventures, one of the oldest and most successful is Simpsons-Sears Limited, which is one-half owned by Simpsons Limited of Toronto and one-half owned by Sears Roebuck and Co. of Chicago. Simpsons, in 1952, did not have the capital to expand significantly its retail department store operations outside its existing market of five cities, and thus to complement adequately its national mail-order business. Sears, meanwhile, was hesitant to enter on its own a market so strongly dominated by Simpsons and Eaton's. An agreement was reached whereby Simpsons contributed its mail-order business to the new venture, while Sears Roebuck offered an equivalent amount of capital. Sears Roebuck also offered its expertise in centralized buying and its private-brand line of products. The joint-venture company has expanded greatly — it now has 60 stores across Canada and had sales of almost \$1.9 billion in 1976.

Another Canadian service industry in which there are several joint ventures is the leasing industry. In that industry, one joint-venture company is Canadian Dominion Leasing Corporation of Toronto. Before 1973, the company was a fully owned subsidiary of U.S. Leasing International of San Francisco. However, in that year, a part interest was sold to the Bank of Montreal, one of the leading banks in Canada. The bank felt that there was a good opportunity to enter a new field with a company experienced in international leasing. U.S. Leasing International and its subsidiary company saw the joint venture as an opportunity to gain access to the Bank of Montreal's enormous customer base. The success of the joint venture is reflected in Canadian Dominion Leasing's excellent growth since 1973 — new business generated increased in dollar terms by more than 135% in the subsequent three years. Another successful joint venture in leasing is Norco Financial Services Ltd., whose owners are Laurentide Financial Corporation, of Vancouver, and BankAmerica Corp., of San Francisco. Laurentide supplied the joint venture with staff and market expertise while BankAmerica provided financial consulting services.

There are, of course, cases where joint ventures have failed. Some have led to management conflicts, bickering over general policy direction, and sometimes even dissolution of the company. But in a large

The allocation of responsibilities... must be clearly agreed upon before the joint venture activities get under way

and growing majority of cases, success can be attained when the companies are compatible in their objectives and in their style of operation. As the mining companies especially are so well aware, the allocation of responsibilities between the partners — for financing, management, sales, etc. — must be clearly agreed upon before the joint venture activities get under way if there is to be avoidance of problems later on.

Many foreign companies who may not be able to enter the Canadian market on their own may be able to enter it through joint ventures with Canadian firms. Even for those foreign firms capable of establishing a wholly owned Canadian subsidiary, there may be merit in analyzing with care the advantages that can be gained by entering a joint venture with a Canadian partner. This approach certainly achieves, among other things, compatibility with a very important economic policy objective of the federal and provincial governments — and is sometimes highly important to the investors in helping them to obtain government financial assistance and other public support for the project.

ANNUAL REPORT 1976/77

Foreign Investment Review Act

The Honourable Jack H. Horner
Minister responsible for
the administration of the Act



ANNUAL REPORT 1976/77 ON THE ADMINISTRATION OF THE CANADIAN FOREIGN INVESTMENT REVIEW ACT

The report
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Foreign Investment Review Agency
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K1P 6A5

Changing patterns of foreign investment in Canada

by Gilles Gratton
and Marcel Custeau

A number of striking changes have taken place in the past few years in the composition of capital flows into Canada. In 1976, for the first time ever, the recorded amount of foreign direct investment in Canada showed up as a minus figure (-\$295 million). Secondly, business firms greatly increased their borrowings in capital markets abroad. Thirdly, an even greater increase occurred in borrowings from abroad by provincial and municipal governments and utilities. Further analysis of these transactions throws some interesting light on these developments.

The annual rate of foreign direct investment in Canada declined from \$725 million in 1974 to \$670 million in 1975 and to -\$295 million in 1976. Some observers saw this decline as a sign of worsening in the investment climate in Canada. Some even spoke of a "flight of capital." But closer study shows, for one thing, that the data on foreign direct investment has been distorted in recent years by a number of large "non-recurring" or "irregular" transactions.

The customary figures on foreign direct investment are computed on a "net" basis

These transactions involved the purchase by Canadians of some assets of foreign-owned firms in Canada. That is, they were initiated by Canadians rather than by investors wanting to withdraw capital from Canada. Whereas transactions of this type amounted to less than \$10 million in 1970, they reached more than \$700 million in 1976. For the period 1971-76 they totalled \$1.4 billion.

The customary figures on foreign direct investment in Canada are computed on a "net" basis; that is, they represent inflows of new investment capital *less* any disinvestment by non-residents, such as through the sale of foreign-owned Canadian assets to Canadians. If one were to exclude the "irregular" transactions mentioned above, an entirely different statistical picture would emerge. Thus, instead of a net "outflow" of foreign direct investment amounting to \$295 million in 1976, there would be a net *inflow* into Canada of \$430 million that year.

... the data on foreign direct investment has been distorted in recent years by a number of large "non-recurring" or "irregular" transactions

Among the larger of the "irregular" transactions that occurred during the past few years, one might note the purchases by the Canadian Government of De Havilland Aircraft from its former British owners (1974) and of Canadair Ltd. from Americans (1976); the 1975 purchase by the Canada Development Corporation of most of the Canadian oil and gas interests of Tenneco Inc., a U.S. company, for \$102 million; and the 1976 purchase by Petro-Canada of the Alberta assets of Atlantic Richfield for an estimated \$340 million.

Still, even the "adjusted" figure showing a foreign direct investment "inflow" of \$430 million in 1976 is considerably lower than the inflow in earlier years. The reasons for the moderate decline in 1975 and the more pronounced decline in 1976 are complex and

There appears to have been a trend away from corporate borrowing from parents and affiliates abroad and towards borrowing in the open market abroad

difficult to untangle, but it is evident that much of the decline was offset by a marked increase in debt financing by corporations.

A few figures will serve to indicate the nature and extent of the changes. New issues of Canadian corporate securities sold abroad amounted to \$448 million in 1974 (see Table 1), but to over \$1 billion in 1975 and to \$3.4 billion in 1976. A good portion of these increased amounts was for the account of foreign-owned firms in Canada which form so large a part of the Canadian economy. There appears to have been a trend away from corporate borrowing from parents and affiliates abroad and towards borrowing in the open market abroad. Whereas borrowing from parents and affiliates abroad is treated for statistical purposes as foreign direct investment, borrowing in the open market abroad is treated as foreign portfolio investment. While the change in the pattern of financing certainly contributed to the decline in the flow of foreign direct investment, the degree of this influence is difficult to ascertain.

The main factor which caused corporations to resort to massive borrowing in capital markets abroad was, undoubtedly, the unusually large spread between high interest rates in Canada and lower interest rates in other countries, particularly the United States. And certain fiscal measures, notably the removal in June 1975 of the Canadian withholding tax on interest payments to non-residents, further enhanced the attractiveness of Canadian bond issues for foreign investors.

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... retained earnings re-invested by foreign-controlled firms in Canada had risen to \$2.8 billion — compared with \$725 million in foreign direct investment

In estimating the rate of foreign-controlled business investment in Canada, one must, of course, also take into account, in addition to capital inflows, the re-investment of retained earnings by foreign-controlled subsidiaries in Canada. Retained earnings have always been a major source of investment financing. However, in 1970, the annual level of retained earnings of foreign-controlled firms in Canada was only a little higher than that of foreign direct investment (see Table 1). But by 1974, the latest year for which this figure is available, the level of retained earnings re-invested by foreign-controlled firms in Canada had risen to \$2.8 billion — compared with \$725 million in foreign direct investment — and accounted for about 80% of the total increase in 1974 in the book value of the stock of foreign direct investment. Thus, retained earnings in Canada and new bond issues abroad have, in recent years, become far more important than foreign direct investment as sources of funds for expansion of business activity in Canada.

New bond issues abroad for the account of provincial and municipal governments and utilities surged from less than \$1 billion in 1973 to \$5.5 billion in 1976

Corporate borrowing was not the only cause of the huge increase in recent years in debt capital investment in Canada by non-residents. Governments in Canada were even more active in capital markets abroad (see Table 1). New bond issues abroad for the account of provincial and municipal governments and utilities surged from less than \$1 billion in 1973 to \$5.5 billion in 1976. Major social investment programs and the inception in several provinces of large-scale hydro-electric projects (partly in response to the energy crisis) were among the factors which impelled governments and their utilities to go heavily into the capital markets. At the same time, as noted earlier, the much lower interest rates in other countries than in Canada, were a key factor which caused much of the borrowing to be done outside Canada.

In face of the exceedingly large capital requirements in Canada in the years ahead — the Economic Council of Canada estimates them at \$800 billion for the 15

TABLE 1

SELECTED INVESTMENT TRENDS (millions of dollars)

	1970	1971	1972	1973	1974	1975	1976
Foreign direct investment in Canada							
Foreign direct investment	835	880	605	725	725	670	-295
Re-investment of earnings	900	1,380	1,580	2,370	2,800	n.a.	n.a.
Other factors	199	-700	-579	265	-93	n.a.	n.a.
INCREASE IN BOOK VALUE OF FOREIGN DIRECT INVESTMENT	1,934	1,560	1,606	3,360	3,432	n.a.	n.a.
Canadian bond issues abroad							
Business firms	541	391	345	306	448	1,031	3,394
Governments and their utilities							
Federal	26	28	30	12	14	47	92
Provincial	528	725	1,140	857	1,713	3,334	4,691
Municipal	65	26	169	110	234	541	826
Subtotal governments	619	779	1,339	979	1,961	3,922	5,609
TOTAL BOND ISSUES	1,160	1,170	1,684	1,285	2,409	4,953	9,003

n.a. — not available

Source: Statistics Canada

years to 1990 — there has been a good deal of discussion about the amount of capital likely to be needed or available from abroad. According to a vice-president of the Toronto-Dominion Bank, Doug Peters, net inflows of foreign capital are likely to rise from \$4.7 billion in 1976 to \$5 billion in 1983 and to \$7.3 billion in 1991. Despite these increases, foreign capital inflows as a proportion of total investment in Canada may well decline somewhat because of a spectacular increase in the rate of Canadian domestic saving. Mr. Peters estimates that the latter will increase from \$45.6 billion in 1976 to \$83.4 billion in 1983 and \$174.3 billion in 1990.

... the change in the pattern of financing certainly contributed to the decline in the flow of foreign direct investment

In the immediate future, however, there is likely to be a temporary decline in Canadian borrowing in capital markets abroad. This seems to be the likeliest prospect in view of the narrowing spread between interest rates in Canada and those abroad, the distinct moderation in growth of expenditure by all levels of government in Canada, and the increase in government and corporate revenues as the Canadian economy regains momentum. Furthermore, favourable market conditions and the general receptivity of Canadian issues in foreign capital markets in

recent years encouraged governments and corporations to place issues abroad in anticipation of future needs.

... the decline in the net flows of direct investment cannot be taken as an indication that foreign investors have become less interested in Canada as a place to invest

In summary, the statistical picture of a recent decline in foreign direct investment in Canada may be misleading. A number of "irregular" transactions in which Canadians purchased foreign-owned assets in Canada offset — and in 1976 more than offset — foreign investment inflows. To that extent, the decline in the net flows of direct investment cannot be taken as an indication that foreign investors have become less interested in Canada as a place to invest. Analysis of the figures also shows that the funds required for that investment were obtained to a much greater extent through corporate borrowing in capital markets abroad, as well as through corporate earnings retained in Canada. Retained earnings and new security issues have, in recent years, become far more important than foreign direct investment as sources of funds for expansion of business activity in Canada.

Capital investment projects in Canada

1. OIL, GAS AND ELECTRIC POWER

This list shows major capital spending projects now in progress or in the final planning stages. Part I (published in the Autumn issue of *Foreign Investment REVIEW*) covered minerals and forest products. Part II covers oil, gas, and electric power and is limited to projects costing more than \$10 million. Other industries will be covered in future issues of *Foreign Investment REVIEW*.

In **oil and gas** processing, the largest single project under construction is the synthetic crude recovery complex (oil sands) at Fort McMurray, Alberta, which is nearing completion. A number of oil sands pilot or test projects are under way or in final planning stages, but only three of these, financed jointly with the Alberta Oil Sands Technology and Research Authority, exceed \$10 million. New petrochemical operations have initiated ethane recovery facilities at four gas processing plants in Alberta, as well as an extensive ethane-ethylene pipeline system. Two new oil refineries (one associated with a new petrochemical complex) are being built in Ontario, and a major plant-modernization is in process at a third refinery.

The major **pipeline** project now in prospect is one that will bring Alaskan natural gas through Canada to the United States. The Canadian portion of this project, which could begin late next year, is estimated at about \$4.4 billion (see article p.5).

Electrical energy projects now in progress or firmly committed will add more than 25% to Canadian generating capacity by 1981 and over 50% by 1986. In addition, a number of projects are awaiting licensing or assessment of need. The largest project is the \$16 billion James Bay hydro development in Quebec, which will add 10 million kw to generating capacity when all four stations are completed in 1985; initial generation is expected in 1980. In Ontario, an extensive program of nuclear generation is expected to add nearly 11 million kw to capacity by 1987. British Columbia and Manitoba are both doing preliminary work for new billion-dollar projects. For eastern Canada, the federal government has recently offered assistance which could encourage power generation and transmission projects, including a \$2 billion project at Gulf Island, Labrador, which is currently suspended. Most provinces make substantial expenditures each year for new transmission projects, but because costs are not often available on a project basis, only a few of these are described in the listing below. Wherever possible, grids are included in the total cost of new power projects.

Company and project description	Completion date	Cost (\$ million)	Location
British Columbia			
Oil refining:			
Husky Oil Co. Ltd. Increased capacity	1978	12	Prince George
Gas processing:			
Westcoast Transmission Co. Ltd. New plant	1979	60	Chetwynd
Electric power:			
B.C. Hydro and Power Authority New power plant	hydro 1977	500	Mica Dam, Columbia R.
	hydro 1980	550	Peace River, Site I
	hydro 1981	500	Seven Miles, Pend d'Oreille River
	hydro 1984	1,200	Revelstoke
Underwater HVDC link	1978	n.a.	Mainland to Vancouver Island
Alberta			
Oil sands projects:			
Amoco Canada Petroleum Co. Ltd.	1978	46	Gregoire Lake
BP Exploration Canada Ltd.	1979	17	Cold Lake
Shell Canada Resources Ltd.	1979	58	Peace River
Syncrude Canada Ltd.	1979	2,152	Fort McMurray
Gas processing:			
Alberta Natural Gas Ltd. Ethane recovery unit	1979	58	Cochrane
Dome Petroleum Ltd. Ethane recovery unit	1978	60	Empress



An oil derrick tower at Cloverleaf Lake, Northwest Territories.

PHOTO: Ted Grant, National Film Board Phototeque

Company and project description		Completion date	Cost (\$ million)	Location
Dome Petroleum Ltd. and Canadian Utilities Ltd.				
Ethane recovery unit		1978	40	Edmonton
Pacific Petroleums Ltd.				
Ethane recovery unit		1979	75	Empress
PanCanadian Petroleum Ltd.				
New gas plant		1980	20	Morley
Shell Canada Resources Ltd.				
New gas plants		1979	22	South Rosevear
		1980	50	Limestone Mtn./Wilson Creek
LPG Recovery unit		1978	25	Waterton
Compressor stations		1978	20	Waterton
Pipe lines:				
Alberta Oil Sands Pipe Line Inc.				
Oil pipe line		1978	80	Fort McMurray to Edmonton
Dome Petroleum Ltd.				
Ethane gathering system		1978	40	Edmonton-Cocharne-Empress-Joffre
Ethane-ethylene-propane pipe line (Cochin)		1978	277	Edmonton to Sarnia, via U.S.A.
Foothills Pipe Lines Ltd.				
Gas pipe line (Canadian portion)		1981	4,400	Alaska to U.S.A.
Shell Canada Resources Ltd.				
Gas gathering system		1980	15	Burnt Timber
Electric power:				
New/expanded power plant				
Alberta Energy Co. Ltd.	thermal	1978	300	Mildred Lake (Syncrude project)
Alberta Power Ltd.	thermal (5th unit)	1981	232	Battle River, Forestburg
Calgary Power Ltd.	thermal (last 3 units)	1980	417	Sundance, Lake Wabamun
		1983	510	South Sundance, Keephills Area
Dow Chemical Co. Ltd.	thermal	1979	48	Fort Saskatchewan
Edmonton Power Ltd.	thermal	1978	45	Clover Bar
Electrostatic precipitators:				
Calgary Power Ltd.		1978	15	Lake Wabamun
Saskatchewan				
Oil refining:				
Consumers' Co-operative Refineries Ltd.				
Increased capacity		1977	25	Regina
Electric power:				
Saskatchewan Power Corp.				
New/expanded power plant	thermal	1977	78	Boundary Dam
	thermal	1979	150	Poplar River
Manitoba				
Electric power:				
Manitoba Hydro				
New power plant	hydro	1978	50	Jenpeg, Nelson River
	hydro	1979	500	Long Spruce, Nelson R.
	hydro	1986	1,100	Limestone, Nelson River
Export transmission line		n.a.	57	Winnipeg to U.S. border
Ontario				
Oil refining:				
Gulf Oil Canada Ltd.				
Replacement of lubricating oil unit		1978	180	Clarkson

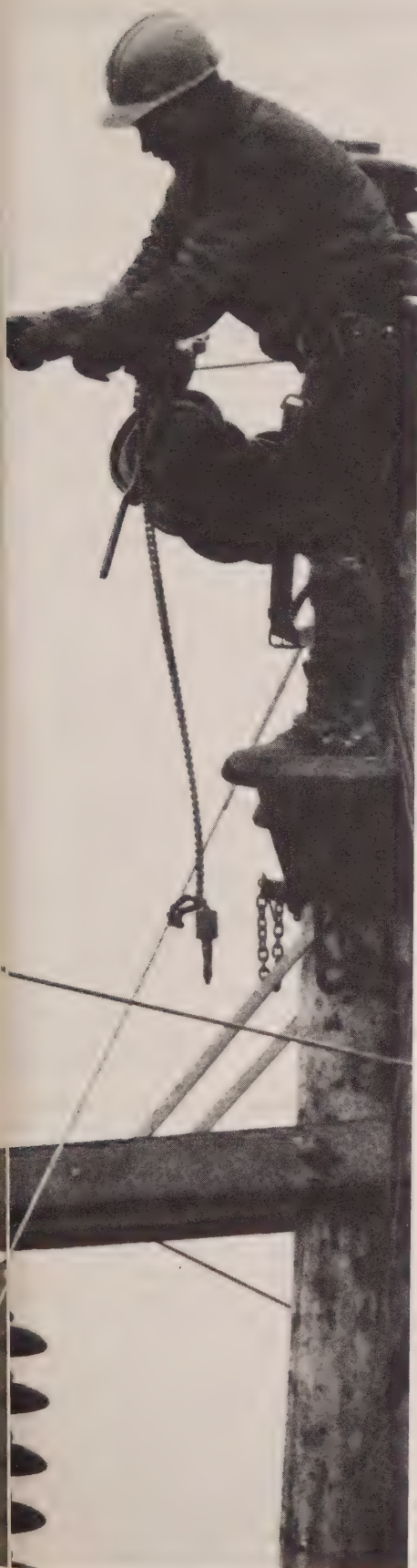


PHOTO: Ted Grant, National Film Board Phototeque

Company and project description		Completion date	Cost (\$ million)	Location
Petrosar Ltd.				
New refinery and petrochemical complex		1977	650	Sarnia
Texaco Canada Ltd.				
New refinery		1978	400	Nanticoke
Electric power:				
Ontario Hydro				
New/expanded power plant	nuclear	1979	1,500	Bruce 'A' Douglas Point
	thermal	1980	35	Windsor
	thermal	1981	300	Thunder Bay
	thermal	1983	1,100	Wesleyville
	nuclear	1983	2,500	Pickering 'B'
	thermal	1984	800	Atikokan
	nuclear	1986	2,800	Bruce 'B' Douglas Point
	nuclear	1987	3,500	Darlington
Heavy water plant		1979	500	Bruce 'B' Douglas Point
		1981	650	Bruce 'D' Douglas Point
Quebec				
Electric power:				
Quebec Hydro				
New power plant:	hydro	1978	n.a.	Outardes II
	hydro	1985	16,200	James Bay—La Grande (and transmission grid)
	nuclear	1979	600	Gentilly II
Atomic Energy of Canada Ltd.				
Heavy water plant		1982	362	La Prade
New Brunswick				
Electric power:				
N.B. Electric Power Commission				
New/expanded power plant	hydro	1979	28	Mactaquac
	thermal	1979	120	Dalhousie
	nuclear	1980	684	Point Lepreau
Nova Scotia				
Electric power:				
Nova Scotia Power Commission				
New power plant	hydro	1978	135	Wreck Cove
	thermal	1981	294	Lingan
Prince Edward Island				
Electric power:				
Provincial government				
Submarine cable		1977	38	Link to New Brunswick
Newfoundland				
Electric power:				
Newfoundland and Labrador Hydro Commission				
New power plant	hydro	1980	100	Hinds Lake
Plant expansion	hydro	1977	40	Baie d'Espoir
	thermal	1979	n.a.	Holyrood

Incentives to industry

The following is a regularly-updated list of the major incentives to industry offered by the federal and provincial governments and available to both Canadian and non-Canadian investors. To qualify, companies must be incorporated in Canada.

FEDERAL GOVERNMENT INCENTIVES

Note: a number of programs which are cost-shared and jointly-administered by the federal and provincial governments are listed only under **Provincial Government Incentives**.

Department of Industry, Trade and Commerce

Enterprise Development Program (EDP)

The program assists eligible manufacturing and processing firms to become more viable and internationally competitive through grants and loans. The grants are to help firms to develop proposals for project assistance, study market feasibility or productivity improvement, procure industrial design services, and develop or introduce new technology. Loans or loan guarantees assist restructuring or rationalization. Further grants or loans are also available to help firms to meet special problems or to further specific government objectives. **Contact:** *Enterprise Development Board, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.*

Machinery Program

This program provides for remission of import duty on types of machinery not manufactured in Canada, when the importation of such machinery is vital to an enterprise. **Contact:** *Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.*

Agricultural and Food Products Market Development Program (AGMAP)

Financial assistance to develop domestic and export markets for agriculture and food products. **Contact:** *Program Unit, Agriculture Fisheries and Food Products Division, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario Canada K1A 0H5.*

Other Programs

Financial assistance programs are also available for shipbuilding, defence production, fashion design, grains and oilseeds marketing and for export market development. **Contact:** *Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.*

National Research Council

Industrial Research Assistance Program (IRAP)

Shares cost of selected research projects. **Contact:** *National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.*

Pilot Industry/Laboratory Program (PILP)

Provides shared-cost research between NRC laboratories and industrial firms. **Contact:** *National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.*

Department of Regional Economic Expansion (DREE)

Regional Development Incentives Program (RDIP)

The program provides grants and loan guarantees to foreign and Canadian firms undertaking ventures in designated regions in all provinces under the Regional Development Incentives Act. Incentives are provided principally to manufacturing or processing operations and loan guarantees are also available to certain new service facilities. The Montreal Special Area designated under the DREE Act is eligible for grants in certain manufacturing or processing sectors. **Contact:** *Industrial Incentives Branch, Department of Regional Economic Expansion, Sir Guy Carleton Building, 161 Laurier Avenue West, Ottawa, Ontario, Canada K1A 0M4.*

Federal Business Development Bank (FBDB)

Provides financial assistance to business, particularly small business, in the form of loans, loan guarantees, equity financing or leasing. Management services are also available to small businesses. **Contact:** *Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.*

Department of Finance

Guarantees loans up to \$50,000 from approved lenders to proposed or existing businesses whose actual (or estimated) gross revenue is less than \$1 million. **Contact:** *Guaranteed Loans Administration, Department of Finance, Place Bell Canada, 160 Elgin St., Ottawa, Ontario, Canada K1A 0G5.*

PROVINCIAL GOVERNMENT INCENTIVES

ALBERTA

Alberta Opportunity Company

Provides financing for Alberta manufacturing and service businesses through direct loans and guarantees of loans for fixed assets or working capital when funding is not available from conventional lending institutions. **Contact:** *Alberta Opportunity Company, Box 360, Ponoka, Alberta, Canada T0C 2H0.*

Canada-Alberta Subsidiary Agreement on Nutritive Processing Assistance

The maximum grant under this program is 25 per cent of the total capital required to build or expand a facility. The grant is restricted to nutritive processing operations in which raw or semi-processed products are physically or chemically altered, processed, refined or made more marketable as nutritional products for humans, animals, or plants. The grants are available for operations anywhere in Alberta except Edmonton and Calgary. **Contact:** *Executive Director, DREE Program, Agriculture Building, 11th floor, 1018 — 107th St., Edmonton, Alberta, Canada T5K 2C8.*

BRITISH COLUMBIA

British Columbia Development Corporation

The corporation provides financing in the form of term loans, loan guarantees, performance bonds, deficiency guarantees, leasing of buildings and machinery, and in special cases, equity. While there is no limit on the amount of funds the corporation may provide, in larger scale projects it prefers to provide assistance in conjunction with other financial institutions. BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the land development division. BCDC acts as project manager of large capital projects in British Columbia. **Contact:** *British Columbia Development Corporation, 272 Granville Square, 200 Granville St., Vancouver, British Columbia, Canada V6C 1S4.*

Ministry of Economic Development

The business development program provides

assistance in marketing British Columbia-manufactured products outside the province by providing financial support to businesses to participate in trade shows and trade missions outside Canada. It also provides a market development assistance program, a technical assistance program, a small business assistance program and a business information service on the availability and source of various forms of financial and other assistance to business. The new business service provides counselling and information about government regulations. **Contact:** *Business and Industrial Development Branch, Ministry of Economic Development, Box 10111, 700 West Georgia St., Vancouver, British Columbia, Canada V7Y 1C6.*

MANITOBA

Design Assistance Program

Cost-sharing of consulting and advisory services for market research, design and redesign of products and packages. **Contact:** *Manitoba Design Institute, 155 Carlton St., 5th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Export Incentive Program

Cost-sharing of promotion for new export markets. **Contact:** *Manitrade, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Research Council

The Research and Development Assistance Program provides shared-cost assistance for research and development of new or improved products or processes. The council's Canadian Food Product Development Centre provides advice and in-plant assistance including laboratory work for food and feed industries. **Contact:** *Manitoba Research Council, 155 Carlton St., 6th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Department of Industry and Commerce

The Feasibility Studies Incentive Program assists manufacturing and processing industries with shared-cost feasibility studies on establishing or expanding manufacturing. The DREE Application Incentives Program provides shared-cost assistance to employ outside consultants in the preparation of applications to the federal government's Department of Regional Economic Expansion programs for the establishment or expansion of manufacturing facilities. The Productivity Improvement Program provides shared-cost assistance to identify problems and obstacles to growth. The Manpower Development Assistance Program provides cost-sharing of manpower development programs. **Contact:**

Department of Industry and Commerce, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.

NEW BRUNSWICK

New Brunswick Industrial Development Board

Provides financial assistance to manufacturers or processors, normally in the form of a loan guarantee or direct loan. Administers a joint federal-provincial interest-free forgivable loan program oriented to small businesses. **Contact:** *Department of Commerce and Development, P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

New Brunswick Provincial Holdings Limited

Will take an equity position in manufacturing companies locating in New Brunswick. **Contact:** *N.B. Provincial Holdings Ltd., P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

Research and Productivity Council

Provides technical support services for industry in New Brunswick, including engineering and problem solving, industrial research and development, and management consulting, on a cost-recovery basis. **Contact:** *N.B. Research and Productivity Council, College Hill Road, Fredericton, New Brunswick, Canada E3B 5C8.*

NEWFOUNDLAND

Newfoundland and Labrador Development Corporation

This joint federal-provincial corporation provides equity and loan financing up to \$1 million for establishing or expanding small and medium-sized businesses. **Contact:** *Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.*

Department of Industrial Development

Approved financing of new or expanding business ventures in amounts of more than \$1 million. **Contact:** *Department of Industrial Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7.*

NOVA SCOTIA

Industrial Estates Ltd.

Long-term loans on 20-year first mortgages on 100% of the cost of new land and buildings of secondary manufacturers and up to 60% financing of new machinery with 10 years to repay. Minimum loan financing available under this program is \$150,000.

Contact: *Industrial Estates Ltd, 5151 George St., Suite 700, Halifax, Nova Scotia, Canada B3J 1M5.*

Industrial Loan Act, Industrial Development Act

Loans for new or expanding resource-based industries and tourist facilities at current interest rates. **Contact:** *Nova Scotia Resources Development Board, Bank of Montreal Towers, P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

Department of Development

The department offers a number of assistance programs to business and industry. These include: The Marketing Assistance Program, the Management Development Program, the Product Design and Development Program, the Rural Industry Program, the Opportunity Identification Program and the Industrial Malls Program. The Strait of Canso Development Office is a joint federal-provincial agency funded by the Department of Regional Economic Expansion and the Nova Scotia Department of Development. The deepwater port is particularly appropriate for the location of heavy industry, particularly as related to the petro-chemical industry and "bulk supership" shipments. **Contact:** *Nova Scotia Department of Development, 5151 George St., P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

ONTARIO

Ontario Development Corporation

Programs include: industrial mortgages and leasebacks, export support loans, venture capital loans, pollution control equipment loans, loans to small businesses, tourist industry loans, and incentive loans to encourage industries to locate or expand in slow-growth areas of Ontario. **Contact:** *Ontario Development Corporation, Mowat Block, 3rd floor, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Ontario Industrial Training Program

Assistance for training programs to companies locating in areas where such programs will help improve employment opportunities. **Contact:** *Ministry of Colleges*

and Universities, Industrial Training Branch, Mowat Block, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.

Retail sales tax exemption for production machinery and equipment

A retail sales tax exemption is granted to a manufacturer or producer who purchases machinery and equipment which alters the goods in process as well as a wide variety of mining, logging, waste removal and pollution control equipment and other types of machinery. **Contact:** *Ministry of Revenue, Retail Sales Tax Branch, Queen's Park, Toronto, Ontario, Canada M7A 1X9.*

PRINCE EDWARD ISLAND

Industrial Enterprises Incorporated

Provides assistance for capital expenditures in the form of first mortgage loans on real estate and/or equipment. **Contact:** *Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0.*

P.E.I. Department of Industry and Commerce

The Industrial Assistance Program provides assistance in the form of forgivable performance loans to manufacturing and processing businesses. Where the maximum capital expenditure is \$25,000, eligible businesses may receive a maximum forgivable performance loan of \$12,500 or 25% of the total capital cost and up to \$2,000 for each new job created.

The Service Sector Assistance Program provides assistance to primary resource industries and/or secondary manufacturers and processors to purchase new, used, or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. For a maximum capital expenditure of \$60,000, the amount of forgivable performance loan would be 25% of the approved capital costs to a maximum of \$30,000 and up to \$2,000 for each new full-time job created. Financing for these programs is on a joint federal-provincial basis. **Contact:** *Department of Industry and Commerce, P.O. Box 2000, 180 Kent St., Charlottetown, Prince Edward Island, Canada C1A 7N8.*

QUEBEC

Quebec Industrial Development Corporation (QIDC)

QIDC offers financial assistance to manufacturing projects in compliance with

the industrial policies of the Quebec Ministry of Industry and Commerce. Long-term financing of capital costs, reduced rates of interest and shared equity in manufacturing projects, are available. These forms of financial assistance are offered to most sectors of industry in Quebec by QIDC together with direct government grants offered by DREE's specially-designated zone in Montreal. **Contact:** *Quebec Industrial Development Corporation, 1126, Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.*

Quebec Ministry of Industry and Commerce

An industrial financing fund to encourage the development of small plants through fiscal abatement at the accrued rate of 25% annually and a tax rebate to encourage regional industrial development for the general industrial sector is available in addition to QIDC development assistance programs. (See listing above). The costs of exporting Quebec-manufactured products are supported by interim financing. The ministry also contributes financially to the organization of trade missions, feasibility studies and market surveys, promotes manufacturing under foreign licenses, conducts regional labour surveys, and studies problems related to industrial productivity, at the request of potential investors. The ministry maintains permanent economic delegations in New York, Boston, Chicago, Dallas, Los Angeles, Toronto, Brussels, Dusseldorf, London, Milan, Paris, and Tokyo. **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec-government-owned societies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

SASKATCHEWAN

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial land for lease or sale. **Contact:** *Saskatchewan Economic Development Corporation, 1106 Winnipeg St., Regina, Saskatchewan, Canada S4R 6N9.*

The Enterprise Development Program (EDP)

Objective

The Enterprise Development Program (EDP) of the Canadian federal Department of Industry, Trade and Commerce is designed to enhance the growth in the manufacturing and processing sectors of the Canadian economy by providing assistance to selected firms to make them more viable and internationally competitive.

The program is mainly to assist smaller and medium-sized firms to undertake relatively high risk projects. Risk is assessed in relation to the overall resources of the firm, and projects must be viable and promise attractive rates of return on the total investment.

The EDP is administered by the Enterprise Development Board and 10 regional Enterprise Development Boards which report to Cabinet through the Minister of Industry, Trade and Commerce.

The EDP uses the corporate approach and attempts to examine all the problems and risks facing a firm at each of the following phases of a product's life cycle:

- concept
- development
- pre-production
- production
- marketing

The program's intent is to identify present and future requirements for assistance and to tailor one or more forms of assistance under EDP, together with other government assistance programs and private sector financing, into a financing package suitable to the applicant company needs.

Replaces previous programs

In April 1977, several of the Industry, Trade and Commerce Department's development and incentive programs were restructured and further decentralized. The EDP replaces the department's previous innovation and adjustment assistance programs: Program for the Advancement of Industrial Technology (PAIT), Industrial Design Assistance Program (IDAP), and the Productivity Enhancement Program (PEP), Automotive Adjustment Assistance (AAA), Footwear and Tanning Industries Assistance

Program (FTIAP) and the Pharmaceutical Industries Development Assistance Program (PIDA). EDP combines the basic features of these previous programs.

Types of assistance

The following forms of assistance are available to both Canadian and eligible non-Canadian investors:

- shared cost programs to develop proposals for projects eligible for assistance;
- shared cost programs to study market feasibility;
- shared cost programs for industrial design projects;
- shared cost programs to study productivity improvement projects;
- shared cost programs for innovative projects;
- special purpose forms of assistance such as surety bond guarantees and footwear or tanning industries assistance;
- loans and loan insurance for restructuring (plant expansion, equipment changes, working capital, etc.).

Who is eligible

The orientation of the program is towards smaller and medium-sized firms engaged in manufacturing or processing activities.

Firms in the service sector are, under limited circumstances, also eligible provided that the provision of services provides direct, tangible and significant benefit to firms engaged in manufacturing or processing.

Each of the various forms of assistance listed above has specific eligibility criteria which, in general terms, might be described as follows:

- the firm and the project must be viable;
- for loans and loan insurance, the firm must be unable to obtain financing on reasonable terms;
- for grants, the project must represent a significant burden to the firm in respect of its resources;
- the firm should be incorporated in Canada.

Books

Storm Over the Multinationals: The Real Issues

by Raymond Vernon

Cambridge, Mass.: Harvard University Press, 1977

The last decade has produced a great deal of literature on the multinational enterprise and its relationships with governments. *Storm Over the Multinationals: The Real Issues* attempts to put all the evidence — and the polemics — in some perspective. While the book contains little that is new — it is essentially a synthesis of almost all recent studies — its comprehensiveness and balance make an important contribution to the discussion.

The book, which was written under the auspices of The Centre for International Affairs and the Graduate School of Business Administration, Harvard University, examines the characteristics and operating strategies of MNEs, showing how they have evolved, multiplied and gained strength. But the characteristics that give them their vitality and strength also make them a focus of concern, and these concerns are examined in the second part of the book.

The author concludes that multinationals are often mistakenly believed to limit national autonomy and thereby to thwart national objectives. The fact of the matter, in his view, is that the growing interdependence of national economies, due to increased efficiency in international communication, is the root of the problem. To the extent that this is so, he points out, nothing would be changed by limiting — or eliminating — the multinationals.

However, there are some problems that arise directly from the transnational structure of enterprise. According to the author, these stem mainly from the fact that the multinational is exposed simultaneously to several national jurisdictions. When each state tries to use the multinational network to further its own industrial policies there is bound to be conflict and frustration. The solution he puts forward is that national governments should co-operate more effectively to "disentangle" national

jurisdictions. They should set limits on the application of their laws or agree to a common approach in such fields as taxation or restrictive business practices.

The author does not see any evidence that states are ready to build a co-operative international regime that would be fair to both the national state and the multinational enterprise. He regards the initiatives taken so far — the disclosure program of the UN Centre for Transnational Corporations and the OECD Voluntary Code — as "trivial in relation to the issues." But he is hopeful that the necessity for concerted action may yet find greater recognition and expression.

— Joan Gherson

Joan Gherson is an economist with the Research and Analysis Branch of the Foreign Investment Review Agency and a contributing editor to Foreign Investment REVIEW.

Book list

International business

Storm Over the Multinationals: the Real Issues

Vernon, Raymond

Cambridge, Mass.: Harvard University Press, 1977

A study of the factors involved in the growth of multinational enterprises and an exploration of the causes of tension between multinationals and national institutions.

Concentration in Modern Industry

Hannah, Leslie and Kay, J.A.

London: The MacMillan Press Ltd., 1977

An analysis of the growth in power and impact of large organizations in British manufacturing and suggestions for public policy on mergers.

Acquisitions and Mergers: Government Policy in Europe

Chiplin, Brian and Lees, Dennis
London: Financial Times, 1976

A description of the economic effects of mergers and of trends in government policy towards mergers in the United Kingdom, the European Community and other regions.

Energy

The Politics of Energy:

The Emergence of the Superstate

Evans, Douglas

Toronto: MacMillan of Canada, 1976

A comparative study of energy policies of the United States, the European Community, the Soviet Union, China and Japan.

Alternative Energy Strategies

Hagel, John

New York: Praeger Publishers Inc., 1976

A summary of the current status and future direction of research and development in energy, especially in non-conventional sources of energy, and of alternative energy strategies for the United States, Western Europe and Japan.

Oil and Natural Gas Resources of Canada, 1976

Oil Sands and Heavy Oils: The prospects
Department of Energy, Mines and Resources
Ottawa, 1977

* Catalogue No. M23-12 77-1 and 2
(2 vols.) \$3.00 Canada, \$3.60 outside
Canada.

This study estimates oil and gas reserves in Canada for both conventional oil and gas and non-conventional oil sands and heavy oils. The second volume provides an interpretation of the information on non-conventional oils and examines their production prospects.

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Toronto: Methuen Publications 1976

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* * Available free from issuing Department.

Statistical tables

QUARTERLY FIGURES

TABLE I — SUMMARY

REVIEWABLE ACQUISITION CASES

	1976			1977		
	second quarter	third quarter	fourth quarter	first quarter	second quarter	third quarter
Total	42	45	58	41	60	80
Industry						
Primary	3	4	3	3	2	11
Manufacturing	25	28	29	16	27	28
Construction and services	14	13	26	22	31	41
Country of control						
United States	27	28	40	25	40	55
United Kingdom	4	7	8	10	10	9
Other Europe	10	8	9	6	4	16
All other	1	2	1	—	6	—

REVIEWABLE NEW BUSINESS CASES

	1976			1977		
	second quarter	third quarter	fourth quarter	first quarter	second quarter	third quarter
Total	51	64	61	62	93	86
Industry						
Primary	4	3	5	3	6	8
Manufacturing	19	17	17	16	25	29
Construction and services	28	44	39	43	62	49
Country of control						
United States	25	31	28	35	48	52
United Kingdom	7	7	6	5	8	6
Other Europe	16	17	23	15	24	21
All other	3	9	4	7	10	7

ANNUAL FIGURES

TABLE 2 — OUTCOME OR STATUS

REVIEWABLE ACQUISITION CASES

	1974 †	1975	1976
Reviewable new cases	102	166	171
Carryover from previous period	—	51	55
Total of above	102	217	226
Total resolved	51	162	159
Allowed	33	116	124
Disallowed	9	21	19
Withdrawn	9	25	16
Carried over to next period	51	55	67
Allowed cases as percent of resolved	65%	72%	78%

REVIEWABLE NEW BUSINESS CASES

	1975 *	1976
Reviewable new cases	6	196
Carryover from previous period	—	6
Total of above	6	202
Total resolved	—	142
Allowed	—	115
Disallowed	—	9
Withdrawn	—	18
Carried over to next period	6	60
Allowed cases as percent of resolved	—	81

† Provisions for review of acquisitions came into force April 9, 1974

* Provisions for review of new businesses came into force October 15, 1975

TABLE 3 — COUNTRY OF CONTROL

REVIEWABLE ACQUISITION CASES

	1974 †	1975	1976
Total	102	166	171
United States	61	116	109
United Kingdom	21	15	23
Other Europe	15	27	33
Belgium	1	2	1
France	3	6	6
Germany, West	5	2	10
Italy	—	2	1
Liechtenstein	2	2	—
Luxembourg	—	—	3
Netherlands	—	5	—
Norway	—	1	—
Sweden	—	2	9
Switzerland	4	5	4
All other	5	8	5
Australia	2	1	—
Bermuda	—	2	1
Japan	2	2	3
Others	1	3	1
Allowed cases as percent of resolved	%	%	%
United States	64	74	74
United Kingdom	70	76	78
Other Europe	67	57	71
All other	50	33	50

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976
Total	6	196
United States	4	90
United Kingdom	—	22
Other Europe	1	63
Belgium	—	1
Denmark	—	5
Finland	—	1
France	—	9
Germany, West	—	22
Italy	1	9
Liechtenstein	—	2
Luxembourg	—	—
Netherlands	—	2
Norway	—	—
Spain	—	1
Sweden	—	3
Switzerland	—	8
All other	1	21
Australia	—	2
Hong Kong	—	3
India	—	3
Japan	—	4
Others	1	9
Allowed cases as percent of resolved	%	%
United States	—	73
United Kingdom	—	93
Other Europe	—	82
All other	—	95

* Provisions for review of new businesses came into force October 15, 1975.

TABLE 4 — INDUSTRIAL SECTOR

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976
Total	102	166	171
Primary	15	18	15
Agriculture	2	—	2
Forestry	3	1	—
Fishing and trapping	—	1	—
Mines, quarries, oil wells	10	16	13
Manufacturing	47	82	93
Food and beverage	5	10	9
Tobacco products	1	1	—
Rubber and plastic products	2	2	3
Leather	1	1	1
Textiles	2	—	2
Knitting mills	1	1	—
Clothing	—	2	1
Wood	5	6	2
Furniture and fixture	—	2	4
Paper and allied	1	2	1
Printing, publishing, and allied	—	3	1
Primary metal	—	3	7
Metal fabrication	2	6	12
Machinery	5	11	4
Transportation equipment	8	6	3
Electrical products	1	9	11
Non metallic mineral products	8	3	9
Petroleum and coal products	—	—	2
Chemical	3	11	15
Miscellaneous	2	3	6
Construction and services	40	66	63
Construction	2	2	2
Transportation, communication, utilities	6	6	9
Trade	18	37	38
Finance, insurance, real estate	10	14	8
Community, business, personal services	4	7	6

† Provisions for review of acquisitions came into force April 9, 1974

REVIEWABLE NEW BUSINESS CASES

	1975 *	1976
Total	6	196
Primary	—	12
Agriculture	—	2
Forestry	—	—
Fishing and trapping	—	—
Mines, quarries, oil wells	—	10
Manufacturing	2	67
Food and beverage	—	3
Tobacco products	—	—
Rubber and plastic products	—	3
Leather	—	—
Textiles	—	2
Knitting mills	—	—
Clothing	—	2
Wood	—	2
Furniture and fixture	1	2
Paper and allied	—	1
Printing, publishing, and allied	—	—
Primary metal	—	5
Metal fabrication	1	10
Machinery	—	5
Transportation equipment	—	1
Electrical products	—	7
Non metallic mineral products	—	3
Petroleum and coal products	—	—
Chemical	—	6
Miscellaneous	—	14
Construction and services	4	117
Construction	—	4
Transportation, communication, utilities	1	10
Trade	1	68
Finance, insurance, real estate	1	10
Community, business, personal services	1	25

* Provisions for review of new businesses came into force October 15, 1975.

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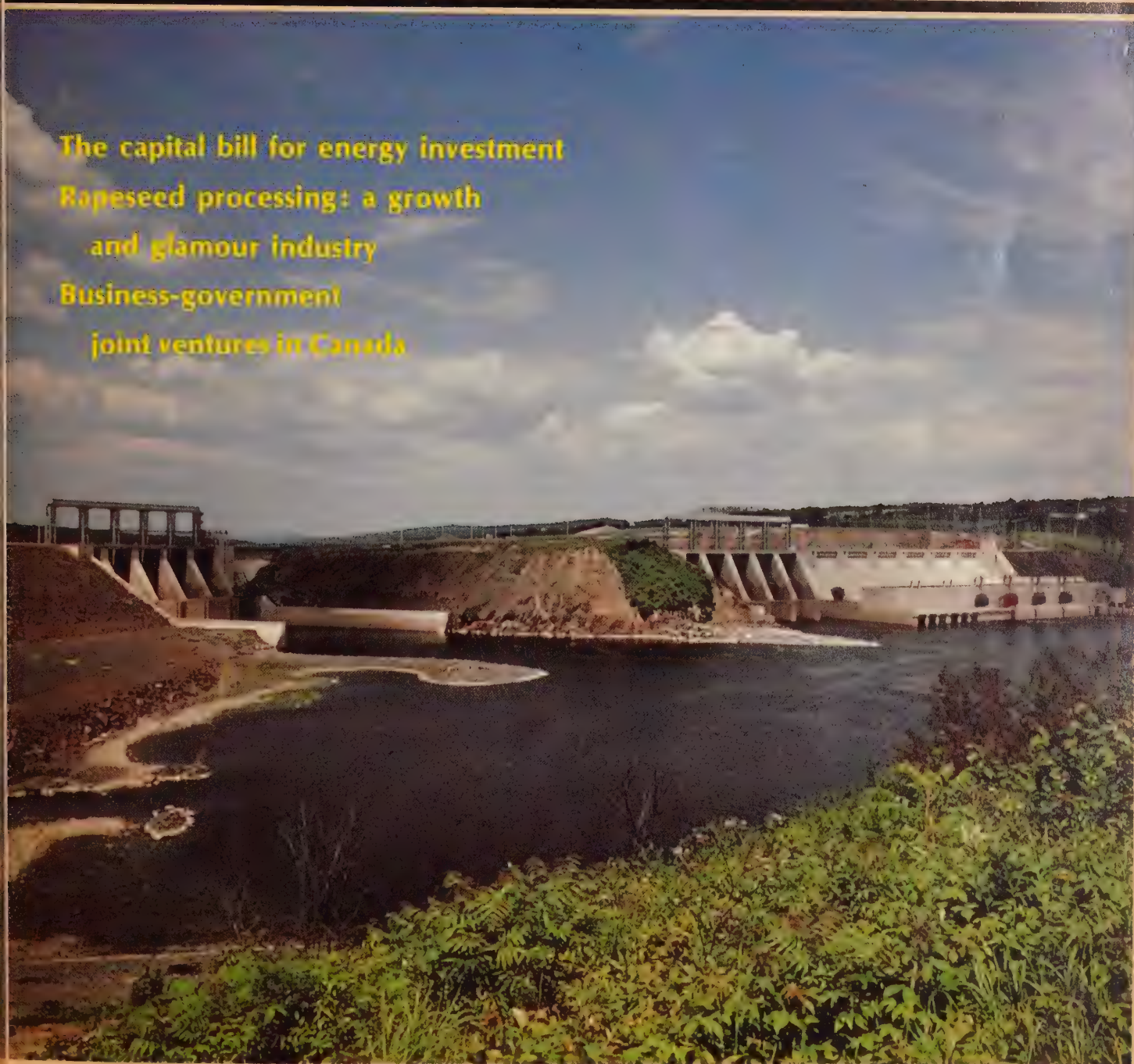
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Spring 1978 Vol. 1, No. 3

The capital bill for energy investment

**Rapeseed processing: a growth
and glamour industry**

**Business-government
joint ventures in Canada**



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View of Mactaquac Dam in New Brunswick

PHOTO: NFB Phototèque; photo by Ted Grant



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FOREIGN INVESTMENT REVIEW

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FOREIGN INVESTMENT

Canada welcomes foreign investment

Prime Minister Pierre Trudeau has made it "quite clear that foreign investment is welcome in Canada, that we need it, that we want it and that we hope it will come." In answer to questions on Canada's foreign investment policies following his address to some 2,000 leading businessmen and bankers at a meeting of the prestigious Economic Club of New York in March, Trudeau explained that Canada welcomed foreign investment with one proviso: "We hope it will be not only to the benefit of the foreign investors but also to the benefit of Canadians." The Prime Minister pointed out that many countries apply this concept through their policies, regulations, and behaviour. "The difference between us and most other countries is that we put the rules out there to be seen and known by all... The tests we put forward are so self-evident that it is difficult to see why anyone would quarrel with them," he added.

LEGISLATION

Revised Competition Bill

The Canadian government recently presented its revised Competition Bill to the House of Commons. If the proposed amendments are passed Canada will have a new competition-regulating mechanism that should improve industrial efficiency and open the way for structural reforms of the Canadian economy.

The proposed legislation is a clear departure from the policies which have been in effect since the beginning of the century. The Bill introduces new criteria concerned with the allocation and effective use of resources. The proposed amendments would eliminate from the existing law a number of constraints that many businessmen have described as stumbling blocks to structural reform.

The new legislation provides for a civil review process for some business practices, such as mergers, specialization agreements and monopolistic practices. The reviewing agency would be a Competition Board which, if the Bill becomes law, will have authority to issue prohibiting orders against certain types of anti-competitive business behaviour. The circumstances under which such orders could be issued are clearly spelled out in the legislation.

One of the chief differences between the new Bill and an earlier version

presented last year is that the Governor-in-Council would now be given the power to rescind a Competition Board's prohibiting order involving a merger, a specialization agreement, or monopolistic practices.

In the case of *mergers* the Board would be called on to review only if the combined share of the market of the merging companies exceeded 20%. A merger could be approved in advance, under certain conditions. Joint ventures could be considered as mergers when the joint venture was implemented through the incorporation of a new company.

In essence, the Board would have to issue a prohibiting order in any case where the proposed merger would cause, or might cause, a substantial reduction in competition. However, in cases where the proposed merger would bring about real cost savings or obvious gains in efficiency, the Board would not be empowered to stop it even if it involved a lessening of competition. An injunction might impose certain conditions, such as a reduction in customs duties, or the liquidation of some of the assets of the company.

Under existing legislation *specialization agreements* are prohibited under the criminal law. The new Bill proposes to make such agreements a matter for review by the Competition Board — a measure which should stimulate rationalization of many Canadian firms. At present the law stipulates that conspiracy to limit competition "unduly" is subject to criminal charges, even if the result would be of economic benefit to the country. The new Bill proposes that two or several firms might ask the Board to authorize an agreement made among themselves by which each might specialize their production. If the Board decided that the agreement was economically justified, it could exempt the firms involved from charges they might otherwise have to face.

The revised Bill maintains the criminal sanctions against *monopolies* if they operate against the public interest, and authorizes the issuing of injunctions against certain business practices if they do not increase efficiency and productivity. The Board would have the power to order the dissolution of the company or the liquidation of some of its assets.

LABOUR RELATIONS

Labour negotiations in 1978: the outlook

The gradual removal of wage and price controls scheduled to begin in April 1978

will not set off a flurry of high wage demands by Canadian unions, according to most Canadian economists and most labour and government spokesmen.

With the rate of unemployment above 8% and extensive layoffs in some areas of business, both union and management negotiators, it is expected, will make every effort to keep 1978 wage demands moderate. On the whole it appears that increases will range from 7% to 8%, much the same as in 1977. Labour Canada reports that the average increase in wages last year moderated by about 0.5% each quarter, reaching a low of about 7% by the end of the year. These figures are based on an analysis of collective agreements affecting 500 or more workers.

Over and above this distinct moderation in wage demands by Canadian unions, Labour Canada reports a sharp drop in the amount of time lost through strikes in 1977. In the period between 1972 and 1976 the time lost broke new records each year: in 1976 work stoppages caused a loss of 11.6 million man days. Last year the statistics were more encouraging, with time lost down to just over 3 million work days for the first 10 months.

1978 will be a busy year for negotiators, since 440 major agreements affecting nearly 900,000 employees — about the same number as last year — will come up for renewal. Some 300,000 union members, at present subject to wage controls, will re-negotiate their contracts.

The sectors that will be most involved in negotiations are transportation, communications, and the public service. The pulp and paper industry and mining also face a busy year, but in these areas it seems likely that bargaining will be more concerned with job security than with wage considerations.

By far the most important labour contracts to be settled this year are those involving public servants and such government employees as hospital workers, teachers, etc. In the government sector alone about 215,000 federal and provincial public servants and about 160,000 public sector employees are affected. The provincial governments of Alberta, Manitoba, Ontario, and Quebec all have to go to the bargaining table with their employees, and the federal government will renegotiate the contracts of some 23,000 workers.

Several governments have already announced their forthcoming wage policies. Recently the finance ministers committed themselves to an anti-inflation wage policy for the public sector. The ministers are

taking the principle of "comparison with the private sector" as a standard basis for public service salaries.

A study published recently by the Economic Council of Canada confirms the influence of market conditions on the determination of wages paid in the private sector. Based on major collective agreements reached between 1967 and 1975, the study points out that "wages in the private sector of the economy have evolved in strict accordance with present market forces and with the desire of workers to protect their real income as much as possible." The study goes on to claim that wages in the private sector have not increased the rate of inflation in the country.

The authors conclude, however, that public sector wages, clearly more sensitive to inflation, have in fact increased the rate of inflation. Without going into details about what they feel would be an appropriate wage policy, they emphasize that "wage settlements in the private sector will be more easily reached if they are not regularly subjected to pressures of comparison with overly generous settlements made in an important public sector."

ENERGY

New oil discoveries in Alberta

The most important oil discoveries in Western Canada in more than 10 years — in the West Pembina area of Alberta — have recently been confirmed by Chevron Standard Ltd. of Calgary and Placer Development Ltd. of Vancouver.

Chevron Standard disclosed that one of six discovery wells (the Nairb A-11) has, after testing, demonstrated a production capacity of at least 3,180 barrels a day of high-quality crude. The six discovery wells represent six separate fields.

Meanwhile, one of the discovery wells reported by Placer Development has been tested at 2,878 barrels a day.

All together, about two dozen oil and natural gas discoveries have been reported or rumoured in connection with this region during the past year — and increasingly indicate a major new source of petroleum in Western Canada.

ECONOMY

Consumer confidence rises

According to a survey conducted in December on behalf of the Conference Board in Canada, consumer confidence in Canada improved considerably in the fourth quarter of 1977. The seasonally adjusted index of consumer attitudes rose from 83.5 in the September survey to 93.2 — the highest level since mid-1974. This brings an end to the downtrend in confidence that occurred during the previous four quarters.

The Conference Board reports that this increase coincides with the turnaround in the Canadian economy in general, as well as in consumer spending in particular, in the second half of 1977.

The Conference Board also reports that the increase in the confidence index in the fourth quarter was accompanied by stronger consumer buying intentions than earlier in the year. Although consumers remain cautious, the Conference Board suggests that there is an increased willingness to undertake a major outlay.

The results of the survey confirm the Conference Board's forecasts concerning consumer spending. The Conference Board predicts that consumer spending will support modest recovery in 1978, aided by the \$700 million tax cut in the first quarter and a steadily declining saving rate throughout 1978.

New security issues

Although new Canadian bond issues were, on the whole, down somewhat in 1977 from the record level of 1976, issues sold in Canada rose while those sold in other countries fell. The change of pattern resulted mainly from a decline in Canadian interest rates which, coupled with an increase in U.S. and other interest rates,

greatly narrowed the spread between Canadian and foreign rates.

According to estimates recently published by the Bank of Canada, new bond issues by Canadian provinces, municipalities, and corporations declined to \$14.2 billion in 1977 from \$16 billion in 1976. Canadian-dollar issues sold in Canada rose to \$8.7 billion from \$7.3 billion, while U.S.-dollar issues sold in the United States dropped sharply to \$2 billion from \$5.4 billion.

Canadian bond issues sold outside North America were down moderately in 1977, at \$2.6 billion compared with \$3.3 billion the previous year. However, while those bonds issued in Canadian and American Euro-dollars were down sharply to \$1.5 billion from \$2.9 billion, those issued in some of the "harder" foreign currencies were actually up noticeably to over \$1 billion from \$404 million. The depreciation of the U.S. dollar, the greater depreciation of the Canadian dollar, and the uncertainties related to these developments enhanced the attractiveness of Canadian issues drawn up in Swiss francs, German marks, and Japanese yen.

An interesting feature in the issuing of new securities by Canadian corporations is that the issuing of preferred stock rose sharply in 1977. Some analysts estimate that new issues of preferred shares jumped to about \$2.4 billion in 1977 from less than \$900 million in 1976. An advantage to corporations in issuing preferred shares rather than bonds was that it enabled them to achieve lower debt-equity ratios than if they had issued bonds.

To explain the overall decline in new Canadian bond issues, then, one might point to the shift in corporate security issuing towards preferred shares, the restraints on the spending of provincial governments, and the fact that the latter did some borrowing in 1976 which anticipated their needs in 1977.

CORRECTION

Ontario's land transfer tax

The previous (Winter) issue of *Foreign Investment REVIEW* reported incorrectly on page 4 regarding an amendment to the province of Ontario's Land Transfer Tax Act 1974.

A correct report on the amendment is as follows:

The amendment permits non-resident persons to acquire, exempt from the 20% rate of tax, land that is defined as "unrestricted".

Unrestricted land will include all land zoned for commercial or industrial use and all land having a residential assessment under The Assessment Act or that is in use for commercial, industrial or residential purposes.

Unrestricted land will not include land that is assessed or used as farm land, recreational land or woodlands.

The capital bill for energy development

by David W. Scrim

Since it is widely known that huge amounts of capital will be needed for future energy development in Canada, there has been some concern over whether the required funds can be successfully raised and allocated through the capital markets without imposing strains and distortions on other economic sectors in Canada. This paper examines the historical pattern of energy financing, summarizes the expenditure outlook for the 15-year period 1976-90, and offers a view on the concern about the economy's capacity to handle future energy and energy-related investments.

The energy supply picture in Canada has worsened dramatically in the last few years. Although the West Pembina discovery appears to be a major oil deposit, the oil reserve base in western Canada has been steadily declining during the past ten years. Also, frontier exploration, particularly for oil, has not been very encouraging. Meanwhile, costs for non-conventional energy development have escalated rapidly.

These deteriorating energy supply prospects in the face of continued growth of energy demand prompted the federal government, in 1975, to adopt a policy objective of energy self-reliance. In relation to that objective, this paper examines a plausible energy supply scenario and discusses the financial requirements and implications for each of the major energy sectors and for the Canadian economy. Some consideration is given to the roles that foreign capital might play.

A much more detailed study of these subjects, entitled *Financing Energy Self-Reliance*, has been published this year by the federal Department of Energy, Mines and Resources.

Energy strategy — a brief review

The federal government's 1975 policy paper *An Energy Strategy for Canada*, which established the policy objective of self-reliance — that is, of supplying Canadian energy requirements from domestic resources to the greatest possible extent — recognized that two factors would be particularly critical to the achievement of this objective: a speed-up of exploration and development and a rise in prices of domestic oil and natural gas towards international levels.

The price increase is crucial, for if the real domestic as well as the international price of oil continues to rise, the oil sands, the heavy oils, and the improvements in conventional recovery techniques

could offer a clear route to reduced dependence on foreign oil. Conservation methods and inter-fuel substitution could also help, of course, to ease the problems of future oil and natural gas supplies.

Table 1 shows the energy supply scenario that is the basis of the capital requirements outlined in the following discussion. The total energy capital bill of \$181 billion (all dollar figures in this article are constant 1975 dollars unless otherwise stated) is similar to the forecast provided in the "strategy" document. However, it deviates in several important aspects: the estimated expenditure for frontier development is much more conservative, with only one gas pipeline forecast for the period; non-conventional oil supplies are significantly increased; and demand for electricity is estimated to grow at 7% rather than 5% a year.

Petroleum (oil and natural gas) investment

During the 30-year period 1947-76, which is generally spoken of as the development period for the petroleum producing industry, about \$20 billion was spent on exploration and development in Canada. During the same period the industry generated net cash flow (after operating costs and royalties) of some \$25 billion. It is only in recent years — in about the past 10 years — that these surpluses have emerged, as shown in Chart 1.

Exploration for, and development of, crude oil and natural gas in Canada was characterized by initial equity contributions from predominantly foreign-owned petroleum companies. Additions to reserves were then financed internally through revenues generated by existing production. Chart 2 summarizes the sources and uses of funds of the petroleum industry during the 15-year period 1960-75. The refining and marketing sectors are excluded because analysis does not suggest any significant funding problems.

After the Western basin was opened for development, smaller entrants into the industry were financed through new share issues. The subsequent discoveries of these companies were often either sold off or developed jointly with major firms. These were necessary recourses for small firms because they usually found it difficult to obtain debt financing for resource investments. In any event, small firms tended to be more attracted to the higher-risk exploration ventures, where successes brought very large payoffs. Development of proven reserves was the more attractive to the large, integrated

companies, who were concerned with assured supplies. Over time, ownership of reserves was concentrated in the hands of a relatively small number of large firms. The smaller firms, however, performed an important and innovative role in providing the technical expertise.

At the end of 1975, total assets of the petroleum industry were approximately \$20 billion. Debt outstanding was \$2.5 billion, and common and preferred share subscriptions amounted to \$3.5 billion.

The pattern for future petroleum development is changing dramatically. Major resource undertakings will give rise to an unprecedented demand for funds. Heavy oil projects, tar sands, and frontier ventures will challenge the financial resources of even the most powerful multinationals. Total capital requirements for conventional and non-conventional petroleum developments during the period 1976-90 are estimated at about \$40 billion in constant 1975 dollars (see Table 1). The outlay for oil sand and heavy oil development alone could total almost \$15 billion during this period.

The potential reserves of gas and oil in Canada's north and in the Atlantic offshore, plus the billions of barrels of proven oil-sand reserves, offer a potential solution to Canada's supply problems. In many cases, technological changes, favourable prices, fiscal incentives, and new financing techniques may be necessary to make the investment commercially attractive to private investors. The federal and provincial governments seem distinctly willing to co-operate with industry to promote an

Table 1

Canadian Energy Supply Projections 1976-1990

Year	Oil		Natural gas		Coal (millions of tons per year)	Electricity (capacity in megawatts)
	Conventional (..... thousands of barrels daily.....)	Oil sands & heavy oil (..... thousands of barrels daily.....)	Conventional (millions of cubic feet daily)	Frontier		
1975	1,737	43	6,900	—	27.7	59,540
1980	1,472	258	8,150	—	44.9	79,100
1985	1,136	432	8,565	1,350	80.5	111,100
1990	736	1,012	6,475	3,750	118.1	151,800

**Capital requirements
(millions of 1975 dollars)**

Year	Conventional oil & gas exploration & development	Oil sands & heavy oils	Refining	Pipelines	Coal, Uranium	Electricity	TOTAL
1976-80	8,320	2,345	1,430	4,955	780	24,400	42,230
1981-85	8,700	6,775	1,035	14,545	1,485	36,190	68,730
1986-90	6,260	5,650	1,340	6,265	990	49,410	69,915
TOTAL	23,280	14,770	3,805	25,765	3,255	110,000	180,875

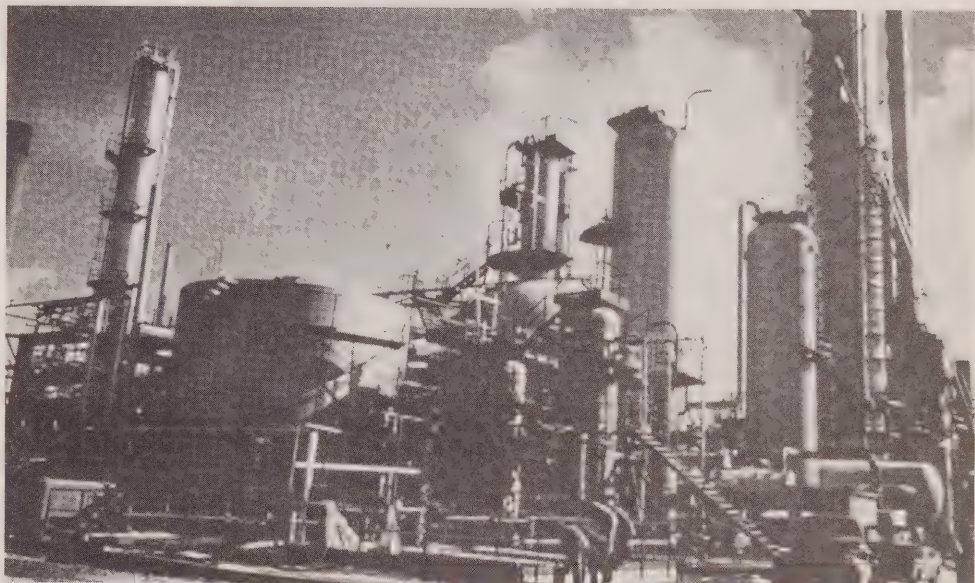
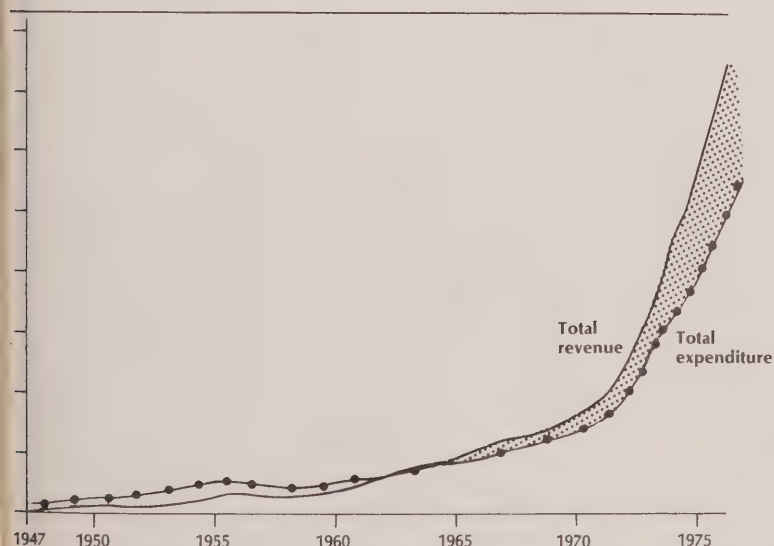


Photo: Imperial Oil Ltd.

CHART 1

**TOTAL REVENUE AND EXPENDITURE
PETROLEUM PRODUCING INDUSTRY ***
1947-1976

(billions of current dollars)

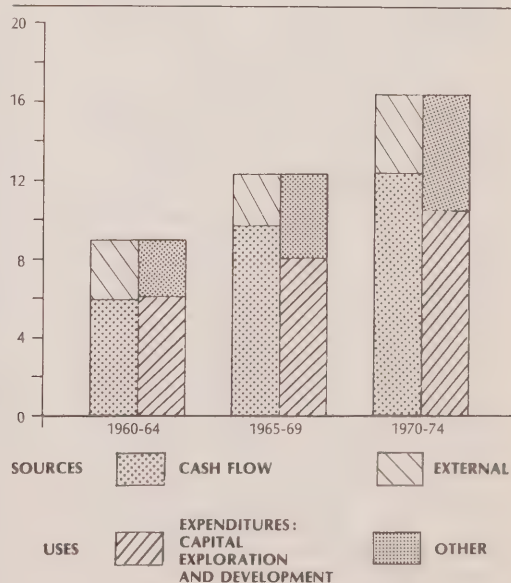


* Excludes refining and marketing.

CHART 2

**SOURCES AND USES OF FUNDS
PETROLEUM PRODUCING INDUSTRY ***
1960-1974

(billions of 1975 dollars)



* Excludes refining and marketing.

atmosphere favourable to the development of these resources.

Projects such as the over-\$2 billion Syncrude oil sands mining plant require unique relationships between government and industry in a common effort to resolve the technical and economic problems of non-conventional petroleum development. Syncrude may well be a prototype of diverse future developments where governments and industry become partners, either directly or indirectly, in the financing of major resource ventures.

As this pattern of development continues to emerge and as the size and complexity of the projects increase, the capital markets will be required to respond with innovative financing techniques. The associated risks of such projects are a concern to financial intermediaries, who are generally more familiar with substantial asset-backing for the projects in which they place funds. It will probably be necessary to accommodate the criteria of such investors by reducing the risk exposure — through diversification and more rigid debt-support mechanisms — and by increasing the investment attractiveness.

Traditionally in Canada, large multinationals have combined with aggressive smaller risk-takers to form the core and provide the impetus for the petroleum industry in Canada. While this led to a high degree of foreign ownership in the industry, there is no doubt that Canada benefitted greatly from the development of these resources. Ownership of resources remains an important concern of governments in Canada, but recognition of the need for additional productive capacity in the future dictates a balanced approach designed both to attract foreign capital and to ensure a significant degree of domestic participation.

Although the petroleum industry in Canada has sufficient cash flows to finance expected investment requirements, these cash flows will not always or automatically be invested in ways that governments in Canada might wish. It is for this reason that the government has introduced the Petroleum Corporations Monitoring Bill. This legislation will allow the Department of Energy, Mines and Resources to obtain relevant financial and other statistics from any significant company active in the petroleum industry. It must be emphasized that the development of Canada's future resource base involves very high risks — geological, technical, and economic risks. The capacity to mobilize the necessary finances may well require a good deal of capital from abroad to complement the funds generated within the country.

Pipeline financing

In the past, the pipeline industry has relied heavily on bond financing. Only half the total funds needed by the industry were generated internally. Capital expenditure during the 15-year period 1960-74 was about \$8 billion, an amount which in the future would be the cost of only a single northern pipeline. The total bill for pipeline financing will depend on the amount of frontier exploration, the rate of discovery, and the development pattern under the given market conditions. The total bill could range from \$17 billion to \$28 billion. Although the current forecast assumes only one pipeline, it should be noted that the Polar Gas consortium has now applied to the National Energy Board for approval of a pipeline from the Arctic. The analysis herein assumes that regardless of which pipelines are built, only one frontier line will be constructed during the 1976-90 period.

Future financing of southern pipeline projects is expected to be done by traditional methods. Demand levels are predictable with relative certainty, supplies are proven, and so is the technology. Thus, highly leveraged investments — high debt-to-equity ratios — can be undertaken, with internal funds providing the required equity.

Frontier pipelines will undoubtedly be more difficult to finance, because of the unprecedented risks they face. First is the risk that they will have to be built before sufficient reserves are found. Secondly,

there are technological problems such as those associated with the crossing of ice-laden deep water channels between the Arctic islands. Thirdly, there is the risk of cost overrun due to inflation and project design deficiencies. Finally, there is the risk that market demand for the high-price natural gas might be undermined by future low-cost supplies. These considerations have led the proponents of frontier pipelines to suggest an "all events" system of transmission rates — which would transfer virtually all the aforementioned risks to the producers by requiring the latter to agree to pay a tariff on minimum contract delivery volumes even if they are unable to deliver these volumes. The pipeline proponents have further suggested that government assistance might be required to attract sufficient capital.

"Project financing" is likely to be the means utilized to raise the debt capital, with principal and interest payments to be met out of project revenues. Revenues would be guaranteed by an "all events" system of transmission rates as described above. It is likely that project financing of the multi-billion dollar northern pipelines will have to be handled by a consortium of both Canadian and foreign lending institutions which would syndicate the loans to domestic and international lenders. The magnitude of the debt financing required, and the limited number of institutions in Canada that would be willing and able to commit sizable funds to such an investment, will make essential a reliance on foreign financing.

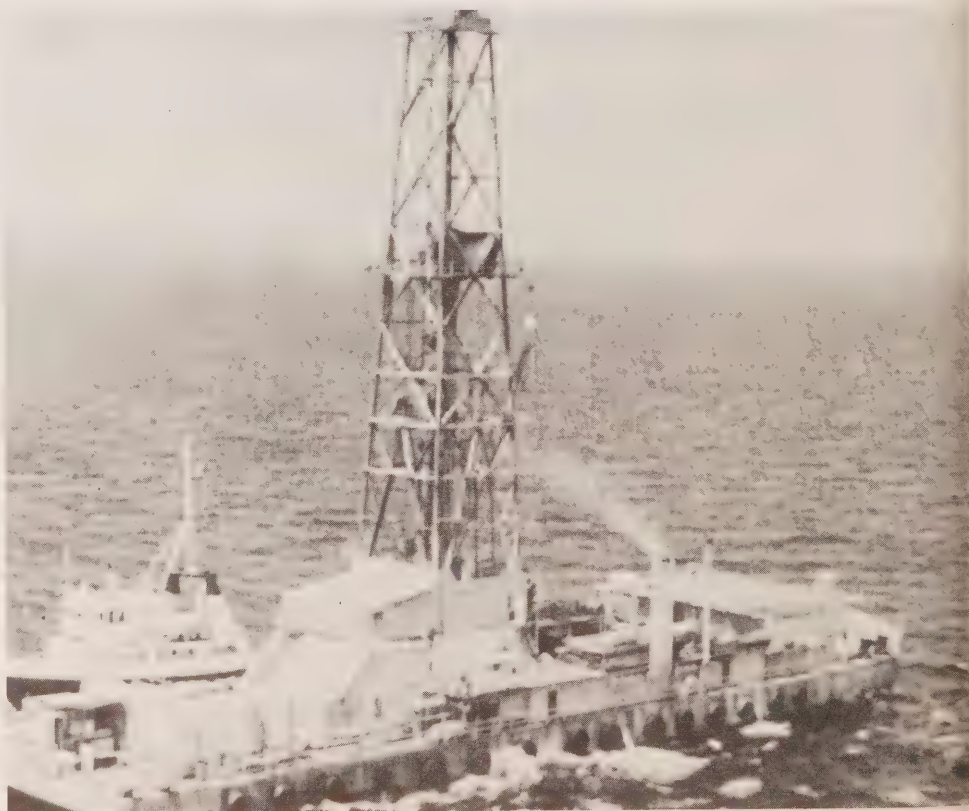


Photo: Energy, Mines and Resources

Electrical utility financing

The Canadian electrical utility industry is composed of a few major provincially owned crown corporations and a larger number of smaller private utilities. Historically, the utilities benefitted from rapid growth in demand which facilitated economies of scale and permitted real costs of electricity to fall. Financing problems were minor because the availability of provincial guarantees made utility bond issues virtually risk-free investments. Bond issues were by far the most important source of funds, since the prevalence of public ownership made equity issues almost entirely unnecessary.

Utilities have, over the past 15 years, on the average operated with about 70% external financing, a substantial portion of which was raised in the U.S. capital market. If this debt-to-equity relationship is maintained, approximately \$77 billion of the total \$110 billion required for the period 1976-90 will have to be sourced externally. Operating losses and other uses of funds could increase this external requirement to \$96 billion, depending on electricity pricing policies. Recent trends in utility performance indicate that an escalation in the debt portion may be required because the pricing policies for utility output will not provide sufficient internally generated funds to cover a 30% equity level. There may well even be a shift in utility financing towards project-oriented capital funding, with either provincial, federal, or some combination of the two levels of government providing a contingency method of meeting debt-service requirements.

Energy mining financing

Although not large by comparison with capital requirements for other energy industries, requirements for coal and uranium development are projected at approximately \$3.2 billion over the next 15 years.

Uranium demand will be tied to the growth of nuclear energy, which appears to be one of the cheapest and most reliable kinds of energy. It is to be expected that the sources of financing for these investments will be a combination of government corporations and domestic and foreign equity contributors.

Coal development has been in a depressed state for the past decade, but interest in thermal coal as an alternative fuel for electrical generation is becoming quite buoyant. Canada has vast resources of thermal and metallurgical coal but, within the industry, there is a definite shortage of available capital. Initial new developments, particularly in the West, will require new front-end equity investment and additional access to capital markets. Development of coal resources may provide extensive investment opportunities.

Table 2

Energy Sector Total External Financing Requirement (millions of 1975 dollars)

	1976-80	1981-85	1986-90	TOTAL
Petroleum	2,510	4,765	625	7,900
Pipelines	2,030	12,290	640	14,960
Electricity	17,300	30,000	48,700	96,000
TOTAL	21,840	47,055	49,965	118,860

Table 3

Energy Sector Domestic External Financing Requirements (millions of 1975 dollars)

	1976-80	1981-85	1986-90	TOTAL
Petroleum	1,080	2,050	270	3,400
Pipeline	1,605	9,710	505	11,820
Electricity	9,860	17,100	27,760	54,720
TOTAL	12,545	28,860	28,535	69,940

Table 4

Energy Sector Foreign External Financing Requirements (millions of 1975 dollars)

	1976-80	1981-85	1986-90	TOTAL
Petroleum	1,430	2,715	355	4,500
Pipeline	425	2,580	135	3,140
Electricity	7,440	12,900	20,940	41,280
TOTAL	9,295	18,195	21,430	48,920

Economic framework

Several studies by private research groups have been published recently, and they all concur with the conclusion that the Canadian economy can absorb the \$181 billion of energy investment without unmanageable strains on the economy. Energy sector investment as a share of Canada's gross national product (GNP) is expected to increase from a pre-1970 percentage of 3-4% to slightly more than 6% in the mid-1980s, then settle back to approximately 5% after the pipeline and non-conventional energy development expenditures peak out.

Table 2 illustrates the level of external financing that will be required in the energy sector. Tables 3 and 4 outline the amounts of borrowing which would be required domestically and abroad if historical domestic-foreign relationships are maintained.

With respect to foreign borrowing, it is difficult to predict the exact reception that future Canadian attempts to borrow on foreign markets will meet. It will depend on, among other things, the growth of Canada's indebtedness relative to its GNP, and the growth of demand for foreign funds relative to the trends in total demand/supply in foreign capital markets. It is expected that the demand on foreign capital markets from all countries will be high, but so will be the supply, especially because of funds available from the oil producing states ("petro-dollars").

The share of domestic energy borrowings to total forecast domestic capital market borrowings would rise from 7.9% in 1971-75 to 16.1% in 1981-85.

The economic studies undertaken have assumed moderate but steady growth of real GNP in Canada and substantial improvements in unemployment and inflation throughout the 1980s. This real growth plus declining capital requirements for residential mortgage borrowing and federal government borrowing is expected to be sufficient to accommodate the increase in the ratio of energy sector capital requirements.

Conclusion

This paper is a rather condensed summary of a most complex subject. It tries to highlight the magnitude of the capital requirements for Canada's future energy developments. Consistent with other analyses based on econometric studies, it concludes that the Canadian economy can handle the \$181 billion of energy capital expenditures. Financial innovation may be required to successfully raise and allocate the capital. Co-ordination among industry and governments will be necessary. The very large financing needs combined with the risk-venture nature of many of the undertakings will require a mix of financing methods that will draw heavily on capital markets both in Canada and abroad.

Rapeseed processing: a growth and glamour industry

by Peter Perkins

Any industry that involves "further processing" in Canada of natural resource products is bound to attract the interest and support of Canadian governments, both federal and provincial. When the particular industry happens to be new, innovative, and open to wide possibilities in the future, it is bound also to attract the interest of investors.

The industry in question, the processing of farm crops to extract new oil fit for human consumption and protein for animal food, is in its infancy, but the potential for growth in an increasingly protein-hungry world is obvious. What it takes is creative scientific research — in which Canada is in the forefront — and the close co-operation of governments and investors.

An example of the growth possibilities in this new area is the burgeoning rapeseed oil industry. Research and co-operation have turned an "unattractive machine oil" into an edible product with a resultant increase in processing capacity from 1,550 tons per day in 1973 to 3,450 tons per day in 1976. By 1980, if construction proceeds on two plants presently in the planning stages, total processing capacity may reach 4,650 tons per day. This would represent a 200% increase in processing capacity in just seven years.

Rapeseed is currently the third most important crop in Western Canada, ranking behind only wheat and barley. In the last five years, annual production has averaged 57 million bushels, with each yearly crop having an average value of \$325 million.

Research has produced a valuable edible product

Rapeseed is grown for the edible oil and high protein meal it yields when crushed, processed and refined in a vegetable oilseed crushing facility. The oil

is generally used for salad or cooking oils, shortenings or margarines. In Canada in 1976, 714 million pounds of vegetable oils were used in the manufacture of these products, with rapeseed accounting for 220 million pounds — roughly one-third of the total.

Rapeseed oil is most popular for oilseed products that have to be hardened or hydrogenated — namely shortening and margarines — because these products are generally blended from different oils, and rapeseed oil is easily blended. It is also a very popular table oil, used for cooking or salads. At present, about half of all the table oil produced in Canada, 40% of margarine, and 20% of shortening, is made with rapeseed oil.

When crushed, rapeseed produces approximately 41% oil and 57% meal of about 36% protein. So, as well as trying to increase the utilization of oil, the industry has developed numerous scientific research programs to improve the quality and increase the uses of the meal as an animal feedstuff. Indeed, the recent expansion in processing capacity could not have taken place without the important advances made by plant breeding research in recent years.

A unique form of international co-operation financed expansion

The present industrial base of the rapeseed processing industry in Western Canada is a unique form of international co-operation.

Grain companies in Western Canada found a need to service their farmer clientele with new marketing opportunities. Rapeseed proved to be a natural, and expansion followed as new markets were found. Foreign companies, many of them traditional importers of oilseeds and oilseed products, found it to their advantage to form joint ventures with these domestic firms in establishing the



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industrial base necessary to encourage more farm production, and have participated directly in the financing of new processing plants.

At present there are six rapeseed crushing and processing plants, all located in Western Canada, with a combined capacity to crush about 39 million bushels annually. Three of these facilities are in Alberta, two are in Saskatchewan and one is in Manitoba.

The two newest of the processing plants have a number of common features. Both began operations in Alberta in 1976, and both have a crushing capacity of 600 tons per day. In addition, both are Canadian-controlled joint ventures.

One of them, at Lloydminster, Alberta, was constructed by United Oilseeds Ltd., a joint venture involving four partners. United Grain Growers, a farmer-owned co-operative grain company based in Winnipeg, Manitoba, holds a 33⅓% interest, as does B.C. Packers Ltd., a leading Canadian food processor. The other two participants are Japanese-controlled companies — Mitsubishi Canada Limited (23⅓% interest) and Nisshin Oil Mills (10%).

The second plant is a joint venture involving the Northern Alberta Rapeseed Processors Co-op (60% interest) and Euro Cana Trade Ltd. (40%), a company located in Hamburg.

Alberta Food Products has recently announced plans to construct a processing plant at Fort Saskatchewan, Alberta. Once again this will be a joint venture between a growers association — in this case the Alberta Wheat Pool — and a foreign investor. The foreign company, Japan Alberta Oil Mills Limited, will hold a 40% interest in the project.

In each of these three projects, a Canadian growers association has, through direct financial participation in the

processing plant, obtained a relatively assured market for the rapeseed produced by its members. For their part, the foreign participants have obtained a relatively assured source of supply of rapeseed products.

In addition to these joint ventures, both the Canadian government and various provincial governments have played active roles in providing financial assistance for the construction of rapeseed processing plants. The federal government's Department of Regional Economic Expansion (DREE) has provided roughly 15% of the total cost of each of the three processing plants operated by CSP Foods Ltd., at Altona, Manitoba, and at Saskatoon and Nipawin in Saskatchewan. For its part, the government of Saskatchewan, through the Saskatchewan Economic Development Corporation, played a major role in the mortgage financing for the processing plant built at Nipawin, Saskatchewan, in 1963.

The government of Alberta, acting through the Alberta Agricultural Development Corporation, provided a guarantee for \$6 million of term financing for the processing plant built by the Northern Alberta Rapeseed Processors Co-op at Sexsmith, Alberta. In addition, the Alberta Department of Consumer and Corporate Affairs (under the Co-operative Marketing Associations Guarantee Act) provided a \$5.1 million guarantee to the Northern Alberta Rapeseed Processors Co-op and its members to facilitate the raising of \$6 million of long term capital for investment in the processing plant at Sexsmith, Alberta.

In combination then, the participation of growers associations, foreign investors and various levels of government has helped to serve the separate goal of each group. The growers associations have obtained markets for the rapeseed grown by their members; the foreign companies have obtained a relatively

assured source of supply of rapeseed products, and the various governments have been able to assist the development of an industrial base in Western Canada.

Research was the key to expansion

To a very large degree, the development of substantial processing facilities has followed the very active research program which, as noted earlier, has concentrated on improving the quality and usability of both the oil and meal products.

Initially, rapeseed was grown in Canada as a war-time emergency measure. The crop was needed for its oil which was used to lubricate the engines of warships and merchant vessels.

After the war and the winding down of the Marshall Plan aid to Europe, the industrial need for rapeseed oil disappeared. In the early 1950s, production of rapeseed declined to a negligible level, but interest in the crop revived and in 1955 a record seeding of 138,000 acres produced a crop of 1.6 million bushels.

The problems facing this young industry after World War II have been vividly described by Dr. Barton Craig, the Director of the National Research Council's Prairie Regional Laboratory. Dr. Craig put it this way: "How do you take a green, unattractive machine lubricant and turn it into an oil fit for human consumption? That's the problem we were faced with. Even the protein meal, the part left after the oil is pressed from the seed, was not particularly good for feeding livestock."

Many of the problems with rapeseed involved the presence of undesirable substances in the seed. In the mid-1950s health authorities issued "cease and desist" orders on the grounds that human products derived from rapeseed were unfit for human consumption. But in 1958, after further research and testing, rapeseed oil was deemed fit for human consumption and products such as shortening, margarine, cooking and salad oil, and salad dressing containing rapeseed oil, began appearing.

In recent years, the research efforts have, for the most part, concentrated on developing varieties of rapeseed which contain low levels of erucic acid and glucosinolates — sulphur-containing sugars peculiar to the plant family in which rapeseed is included. (It is these substances which give the "hot" flavours to such foods as horseradish and mustard.)

In the early 1970s new problems arose that appeared likely to restrict the further development of the rapeseed industry in Canada. Suspicion developed



Photo: National Research Council

that the erucic acid content of rapeseed oil was nutritionally harmful to humans.

Early research had indicated that the level of erucic acid varied considerably depending on the variety of rapeseed, that there was a genetic basis for this variation, and that it would be possible to develop varieties very low in erucic acid. With this background knowledge the researchers were able, when the potential health problems arose in the 1970s, to respond quickly to the problem.

Plant breeding experiments were successful in breeding out erucic acid. The rapeseed now produced in Canada yields an oil low in erucic acid and significantly below the 5% level now set as the standard for low erucic acid rapeseed — "LEAR" varieties.

A second major research effort has dealt with the problems associated with the glucosinolates occurring in rapeseed. These substances were, at one time, implicated in growth disorders occurring in animals fed rapeseed meal. Initial research indicated that it was not the glucosinolates which were harmful but the by-products of the glucosinolates which were produced by the activity of enzymes during the crushing process. This problem was solved by adopting a crushing procedure in which the temperature was rapidly raised during the crushing operations. This procedure deactivated the enzymes and left the glucosinolates intact.

In recent years, the level of glucosinolates has been substantially reduced through plant breeding. The "double-zero" (low erucic acid and low glucosinolates) variety of rapeseed was introduced in Canada in 1974 and is now the most commonly grown variety.

Just as various government organizations have contributed directly to the construction of many of the rapeseed processing plants, there has also been, and continues to be, significant government support for research involving rapeseed and other oilseed crops.

The Canadian government supports research in this area through two specific programs. Under the Rapeseed Utilization Assistance Program (RUAP), grants are available for research on rapeseed and its by-products which will aid in developing new markets or investigating other concerns of the industry. Grants are made by the Grains Marketing Office of the Department of Industry, Trade and Commerce and are administered by the Rapeseed Association of Canada.

The federal government also provides the major part of the capital funds for the P.O.S. (Protein, Oil and Starch) Pilot Plant Corporation, with the balance of the capital and operating funds being

provided by provincial governments, corporations, universities and trade associations. The Corporation provides funding for pilot scale facilities engaged in the development of processing technology for cereal grains and oilseeds.

The future lies in energetic selling at home and abroad

With the rapeseed industry now firmly established in Canada, its future depends on its ability to develop more markets through research, and to continue to offer the opportunity for profit at both the farm and processing level.

An analysis of trends in Canada indicates that by 1980 there should be sufficient demand for rapeseed oil to absorb about 425 million pounds annually. That would require the crushing and processing of about 21 million bushels annually.

Clearly rapeseed oil will need to be exported into foreign markets if the existing plants are to be able to dispose of their production. And this is indeed the direction in which the industry is moving.

International oil markets are very competitive, with numerous products from various countries competing for a share of the potential markets. Nonetheless, with strong promotion and a good product, Canadian rapeseed crushers have been able to move an increasing proportion of their oil output into foreign markets. In 1976 approximately 30% of the rapeseed oil produced in Canada was sold overseas. Much of this export performance was accounted for by food aid assistance, but increasing amounts are being marketed to Pacific rim countries and the Middle East. In the future these markets are expected to expand, and Canadian rapeseed oil is projected to capture an increased share of the business.

The meal side of this industry is generally more encouraging for future expansion without the necessity for rapid export market development. The Canadian domestic animal feed market can absorb a significant increase in rapeseed meal production.

In 1976 a little over one million tons of high protein feedstuffs were used by Canada's livestock feeding industries. On a protein equivalent basis however, rapeseed meal supplied less than one-fifth of the market's needs: the rest came mainly from imported soybean meal or the meal derived from Canadian and imported soybeans in eastern Canada.

Export potential is limited at present, although about a quarter of last year's output was marketed overseas.

As the new and better quality characteristics become more readily available in commercial rapeseed meal, it is expected

to expand its share of the domestic market, and there is every likelihood that new markets will be found overseas.

New uses will have to be found

Additional potential for market expansion of the output from rapeseed crushing exists in non-traditional uses. Rapeseed oil, like most other vegetable oils, can have industrial uses — although for Canada's rapeseed industry this is not so relevant since the low erucic acid varieties were developed specifically for the edible foods industry. On a limited scale however, high erucic acid varieties are still being produced to service a small developmental industry that is trying to expand the application of rapeseed oil in the production of plastics, lubricants, lacquers and detergents.

For rapeseed meal the converse is the case. Any vegetable meal extraction with a high protein content has the potential for use as a highly nutritious substitute in human food diets and research is being pursued at present to develop products suitable for human nutrition from rapeseed meal. The protein is isolated and respun into fibres and fashioned to resemble whatever kind of meal it is intended to resemble, and flavoured accordingly. These protein meal extracts, although still in the development stage, have been demonstrated to be both nutritionally and economically sound. In the future there will undoubtedly be more use for rapeseed meal as a human food in such products as meat analogies, flour, and milk substitutes.

For the time being these new uses for rapeseed products will not create a significant increase in market demand, but with further research advances it is likely that the versatility of uses of rapeseed products will become a greater stimulus for expansion.

At the same time, both provincial and federal governments continue to search for and expand opportunities that widen the industrial base of the Western Canadian economy. It is only natural that agriculture will continue to be the focus of such attention. The bright long-run future for oilseeds in general, and rapeseed in particular, will undoubtedly ensure continued interest in the rapeseed processing business as a means of securing a more diversified economy for the prairie provinces.

From rapeseed, attention will surely turn to other agricultural crops with similar opportunities for innovation, the extraction of protein from alfalfa for instance, or the processing of agricultural waste — such as wheat straw — to create new animal feed products. It all depends on research — and on investors and governments.

The Haley-Bendix joint venture in Quebec

by Joan Gherson

An enterprising firm, an industrial need, and the opportunity to fit in with several government policy objectives have resulted in a large new enterprise — a Canadian-American joint venture to produce ductile iron castings — which can be expected to benefit the Canadian economy as well as the investors.

The enterprising firm is Canadian-controlled Haley Industries of Orillia, Ontario; the American partner is the Bendix Corporation of Southfield, Michigan.

Haley produces high quality magnesium and aluminum alloy castings for the aircraft industry in its light alloy foundry at Haley, Ontario. That foundry was bought from the Canadian government at the end of 1967, just as it was about to be closed down after years of operating at loss. Today, reorganized and profitable, the foundry is one of the most modern in the world, and has a considerable export record.

Haley management is also experienced in iron foundries, its owners having formerly owned and operated Otaco Foundry, a division of Bartaco Industries in Orillia. "Our experience there, combined with extensive industry and market surveys, convinced us that this was an opportune time to expand operations in the ferrous foundry field," said Mr. R. H. McRae, Executive Vice-President of Haley and of the new company.

The problem of the industry

At first glance the ferrous foundry industry in Canada does not seem a promising sector for a new firm. Total Canadian capacity in 1975 was almost 1.8 million tons, whereas shipments in that year amounted to only 1.2 million tons. The industry in Canada is traditionally subject to severe swings in production and capacity utilization and is still in the low phase of such a cycle. Like all suppliers of parts, the ferrous foundry industry must await a turnaround in its customers' output before its own market can significantly improve. In the sector of the industry that supplies castings to the automotive and farm machinery industries, the problem is compounded by the fact that many of the largest customers — usually U.S. firms — have their own "captive" foundries which supply most of their normal requirements. Canadian jobbing foundries, which are generally independent, serve a segment of the market that is not in the interest of the captive shops to serve themselves; this frequently represents a significant part of the total business.

The solution is co-operation

To Haley Industries, the situation suggested the need for a partner-customer to generate a certain sales volume and

to provide the focus for product specialization. Extensive engineering studies were undertaken to prove the viability of the project to a prospective customer. In addition to being in a position to finance part of the venture, the customer would have to be a large user of foundry products who did not already have a "captive" foundry and could therefore provide a certain and reliable market for a large proportion of the foundry output. The advantage to the user firm would be in gaining a captive supplier of high quality castings for part of its requirements. From this mutual interest in stabilizing market conditions emerged the joint venture between Haley and The Bendix Corporation, to be known as Métallurgie Farnham Inc.

The operations of the customer, Bendix, determined the new foundry's specialization, which will be in caliper brake castings. As one of the world's largest independent suppliers of automotive systems and components, The Bendix Corporation will be able to use a large part of Métallurgie Farnham's output. Other likely buyers were then found in the automotive, construction equipment and farm machinery industries for substantial additional volumes of similar kinds of castings. As a result, most of the firm's output, which is expected to be in the order of 20,000 tons of castings when operations reach full capacity in 1983, already has a potential market. A high proportion of this output (even apart from sales to Bendix) will be exported, mainly to the United States, which should improve the Canadian balance of trade under the Canadian-American automotive pact.

Benefits and incentives

For both the company and the province of Quebec the decision to locate the new plant in Farnham, Quebec, was a happy one. From the firm's point of view the location, only about 30 miles from Montreal, offers good access to its major market and is close to suppliers of its principal foundry outputs, pig iron and scrap. The only input that cannot be obtained locally (or, indeed anywhere in Canada) is sand of the right quality and this will have to be trucked in from the United States. Most of the work force is expected to come from the immediate area and payroll costs are judged to be competitive with other parts of North America. Moreover, as Mr. Brian Barr, President of Métallurgie Farnham Inc. points out, "For an industry requiring substantial amounts of power, the fact that Quebec Hydro rates are among the lowest in North America was an important factor in choosing a Quebec site. And with the energy crisis we think energy costs for our U.S. competitors will rise faster than ours." Finally, the fact that any manufacturing or processing industry

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locating in this area may qualify for grants under the federal government's Regional Development Incentives Act (RDIA) made the location particularly attractive.

RDIA grants, administered by the Department of Regional Expansion (DREE), are intended to provide incentive for industry to locate or expand in areas of slow growth. For large projects (over \$1.5 million in capital costs), the amount of the incentive grant is not fixed but depends on the economic benefits expected from the enterprise and the amount needed to make the project attractive to the entrepreneur. Consideration may be given to the probable rate of profit on that project in another location as well as to the rate of return on alternative projects to the investor.

For this project, there were substantial economic benefits on which to base the incentive grant. Although incentive grants are not available until commercial processing operations have actually started (normally, 80% can be paid when

the plant is in commercial operation and the remainder after a control period) the authorization of a grant helps in securing bridge financing, frequently at better rates.

In the case of Métallurgie Farnham Inc., the obvious benefits to the Province of Quebec — a type of foundry that is new to the province, an immediate improvement in construction and related activities in an area where unemployment is of the order of 12-15 percent, eventual employment for about 300 foundry personnel, the upgrading of Quebec raw materials and the benefits to other local activities resulting from such a large investment — led to the granting of provincial incentives as well, in the form of interest rebates from the Quebec Industrial Development Corporation.

Since the new business venture was subject to joint control by the two corporations, one of whom (Bendix) was not Canadian, it required approval under the Foreign Investment Review Act in order to proceed.

The Agency's Assessment Branch found that this investment satisfied an unusually large proportion of the Act's criteria of significant benefit to Canada. As one of the Assessment Branch officers remarked: "It creates new employment and this is particularly important in an area of high unemployment; it involves the further processing of Canadian resources; it will introduce a modern, efficient plant; it will produce what, for this industry, is a sophisticated product not otherwise produced in Canada; by 1980 it is expected to generate a high level of export sales and there is to be substantial participation by Canadians as directors and managers of the new firm." In view of such benefits, it is not surprising that the application was processed quickly and the investment was allowed.

Construction at the 80-acre foundry site in Farnham was well underway before the onset of winter and there is every reason to expect that the plant will be in operation by its target date.



Business-government joint ventures in Canada

by Frank Swedlove

In the preceding issue of *Foreign Investment REVIEW*, Frank Swedlove authored another article on joint ventures, dealing with those between one private business firm and another and, for each of several important economic sectors, the considerations in entering joint ventures, particularly for a foreign investor contemplating an arrangement with a company already located in Canada. In the present issue he writes about the factors in the rapid growth of joint ventures between foreign investors and Canadian governments or government corporations — and the benefits that both sides feel they gain from such partnerships.

The growing number of cases in which business firms and governments in Canada are getting along well together in joint ventures is breaking down old myths. Some of these myths are that businessmen are invariably opposed to government participation in economic areas that have traditionally been the domain of private enterprise; that government agencies or companies are apt to compete unfairly with private companies; and that in joint enterprises between governments and private businesses, governments may want to impose goals and practices that are contrary to sound business principles.

From widening experience, businessmen are increasingly finding that government companies and agencies operate fairly and in a business-like manner and that, in joint ventures with private companies, governments' goals need not conflict with, but rather can achieve realization through, the business goals of the joint enterprise. Businessmen are finding that, in certain circumstances, governments can play a useful, sometimes substantial, and often vital role in the launching, development, or viability of the enterprise.

Willingness to wait for profits, share high risk, can make government a good partner

Governments are often more willing than some private investors to enter into high-risk projects and to adopt a long-run horizon — a willingness to wait several years before profits are made and a willingness to re-invest all of the early profits rather than requiring dividend income. With the rising risk and soaring costs of many projects — notably resource-development projects that require large amounts of capital, new technology, or the opening up of frontier areas — the equity participation of governments may be vital. Governments may, in fact, be the last resort for completing the equity funding of certain projects.

Businessmen also appreciate the fact that governments, through participation in business enterprises, will gain a greater understanding of business realities — and will therefore be less likely to impose what, from the business standpoint, might be seen as unreasonable taxation or legislation. Businessmen appreciate, as well, the opportunities for broader and better contacts with government which arise from joint business ventures with government. And businessmen may feel, through engaging jointly in business enterprises with governments, a sense of broader public support from the people of the country or the particular region in which the project creates jobs and other benefits.

Governments invest through their crown corporations

The Canadian government and several of the provincial governments have set up crown (government) corporations which co-ordinate the use of government equity funds. One of the principal functions of these crown corporations is to facilitate the establishment of joint ventures with private firms. The fact that these crown corporations have, in recent years, greatly augmented and diversified their portfolios of joint-venture arrangements would seem to reflect a growing realization on both sides that there can be mutual benefits in establishing public-private partnerships.

The degree of prevalence of these partnerships can, to a large extent, be perceived by examining the activities of four governments in Canada — the Canadian government and the provincial governments of Alberta, Saskatchewan, and Quebec.

Most of the Canadian government's joint-venture activities are in the resource-development sector. No less than 15 federal government agencies, or fully or majority-owned companies, are involved in some way in resource-development ventures in Canada. The larger joint ventures in which the federal government has equity participation with private enterprise are the Nanisivik Mines, the most northerly mining operation in Canada, which produces lead-zinc concentrates; Petrosar Ltd., a petro-chemical complex near Sarnia, Ontario, which has just started up production; Syncrude Canada Ltd., which will separate liquid hydrocarbons from the Athabasca tar sands in Northern Alberta; and Panarctic Oils Ltd., which carries out oil and gas exploration and development in the Canadian Arctic.

In the manufacturing and service sectors, the Canadian government's involvement in joint ventures with private companies is, for the most part, quite indirect. This involvement occurs largely through the Canada Development Corporation which, although majority owned by the federal government, is actually a highly independent holding company, with considerable non-government equity financing and operated on strictly business principles. The CDC, through its wholly or partly owned subsidiaries, is involved with private industry in 21 joint ventures in the manufacturing and service sectors.

More will be said later about the joint ventures in which the federal government and the CDC are involved.

Governments accept need for minimum political intervention

It should be understood that most of the Canadian government corporations are

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relatively "autonomous" — that is, relatively free of "unbusinesslike" intervention by the political government. While cabinet ministers have ultimate responsibility for the general direction of a crown corporation's performance, they do not participate directly in the day-to-day management, which is under the direction of a board of directors. Moreover, of course, the government realizes that where private-sector investors are involved with government in the enterprise, there is compelling need to be free of control or managerial intervention by the political government. Only by establishing a reputation for allowing public-private joint ventures to function like any private business can government hope to find the necessary private partners for the projects in which it is interested. This fact was clearly spelled out in recent hearings of the federal government's Public Accounts Committee (see, for example, the reported proceedings of December 13, 1977).

Among provincial governments, the one that has the most numerous and diverse involvements in joint ventures with private companies is the government of Quebec. It has quite a few agencies that participate in joint ownership with foreign and Canadian firms. La Société Québécoise d'Exploration Minière (SOQUEM) carries on mineral exploration, development, and production in partnership with private mining companies — involving iron ore, gold, salt, titanium, niobium, ilmenite, rutile, and many other minerals. In 1976, SOQUEM and a Spanish government agency formed a company called INI-SOQUEM to find and develop mineral deposits along the south shore of the St. Lawrence River. Another Quebec government company, Sidbec, together with the British Steel Corporation and a subsidiary of the United States Steel Corporation, formed Sidbec-Normines Inc. to mine and pelletize iron ore near Port Cartier. The provincial government's Société Générale de Financement du Québec has eight joint ventures with private industry — in sectors such as shipbuilding, electrical equipment, lumber, paper, particle board, and office furniture. Another provincial corporation, the Société de développement industriel du Québec, participates in several joint ventures that were established to promote efficient industry in Quebec.

The Alberta government has a 50% interest (the other shares are held by individual citizens) in the Alberta Energy Company, which is involved in several energy-related joint ventures. Among these is a 25% interest in a coal venture in Coal Valley; a 49% interest in Pan-Alberta Gas Ltd., which was set up to market Alberta-produced natural gas outside the province; a 50% interest in Steel Alberta Ltd., whose objective is to

determine potential investments in the steel industry, and a 40% interest in the forestry complex in the Whitecourt region of Alberta. The Alberta Energy Company also plans to invest in other ventures, including petrochemical projects, liquids pipelines, underground storage for petroleum, and a wide range of additional ventures.

The Saskatchewan government's mineral ventures are handled by the Saskatchewan Mining Development Corporation. Among this corporation's activities is participation with private interests in the search for and development of uranium in the Wollaston and Key Lake areas of Saskatchewan. The Saskatchewan government also has a 20.2% interest (as does Steel Alberta) in Interprovincial Steel and Pipe Corporation Limited, a steel-making and pipe-manufacturing company. On the manufacturing side, the Saskatchewan Economic Development Corporation (SEDCO) encourages industrial development in the province by several means, including equity participation. SEDCO's investment portfolio includes 15 companies four of which are joint ventures with foreign firms. The largest of these joint ventures with foreign firms is Prairie Malt Canada Ltd., which manufactures malt for export. This plant is 50% owned by SEDCO, the rest of the shares being held by German and Canadian private interests.

In the remaining provinces, there are few joint ventures between the provincial governments and private enterprise. The provincial governments have generally preferred to maintain 100% ownership of the corporations in which they place equity investments and, apart from that, to support industry through loans and other incentives. Two notable exceptions are the participation, along with private firms, of Ontario Hydro in two uranium exploration ventures and of Manitoba Mineral Resources Limited in a number of joint exploration ventures.

National governments of other countries too have taken an interest in investing in Canada, almost exclusively in the natural resources field. The Canadian government's Department of Energy, Mines and Resources, in its publication *Government Participation in Mineral Ventures in Canada*, identifies seven foreign governments which, in total, have 49 companies that explore for, develop, produce, and market Canadian minerals. The most active participant is France, with interests in 25 companies. Other substantial investors are West Germany, the United Kingdom, and Italy. Most of the 49 companies wholly or partly owned by non-Canadian governments participate in joint ventures with private companies, both Canadian and non-Canadian.

Government participation can mean benefits other than funding

Several reasons have been offered earlier as to why so many private businesses have become involved with governments in Canada in joint business ventures. Two reasons are probably the principal ones: governments and government-supported corporations are often more willing than private investors to enter into high-risk projects from which there is little hope of profits for several years; and governments are sometimes the last-resort partners to whom private interests can turn.

The Canada Development Corporation, in its 1976 Annual Report, noted the first of the above reasons as part of its operating philosophy: "CDC is prepared to be patient, recognizing that some of its opportunities will exist because others are unwilling or unable to wait through years of earnings buildup, but the projects selected should have the prospect of high, long-term growth and a superior rate of return on equity."

Among its high-risk undertakings, the CDC has part ownerships in three venture capital companies that invest mainly in high-technology — often research-oriented — areas, such as solar products for swimming pools, automated mapping equipment, geographical instruments for use in mineral exploration, a process to convert waste cellulose into cattle feed, development of a rear projection screen, and the design and manufacture of sensing and control equipment for the pulp and paper industry.

Another high-risk project in which the federal government participates is through its 45% interest in Panarctic Oils Ltd. (the other 55% is owned by a consortium of 30 companies and individual participants). Benefits in the form of profits accruing from this exploration of the Arctic islands are not expected to be realized before the mid-1980s, the earliest possible completion date for the Polar Gas pipeline hook-up in Ontario to the existing Trans-Canada pipeline. The Canadian government has been able to contribute to this project large amounts of capital and a willingness to wait quite a number of years for a return on the investment.

As for the need to turn sometimes to governments as partners of last resort, the most prominent example of this occurred in 1974 in the case of Syncrude Canada Ltd. One of the four original partners, Atlantic Richfield Canada Ltd., wished to withdraw from the project and there seemed to be no other private company willing to take on the huge financial requirement necessary for participation.

It became clear to the governments which became involved that, if they did not make substantial investments as equity partners, the project would be dropped with considerable loss of future oil supplies, employment, and other benefits. As a consequence, the federal government took 15% of the equity, the province of Alberta 10%, and the Ontario government 5%. (The private-industry partners are Imperial Oil, Gulf Canada, and Canada-Cities Service.)

Joint ventures serve government objectives too

Governments too have several reasons for wanting to participate in joint business-government ventures.

First, these arrangements can be used as tools to promote resource or industrial development, and regional development, in the area within a government's jurisdiction. Equity investment in particular projects, along with experienced private entrepreneurs, enables governments to focus their funds more effectively than they can through, say, tax incentives, which tend to have a more generalized or diffuse impact.

Secondly, it enables governments to obtain a better understanding of various industries.

For both these reasons, many of the crown corporations established by the provinces have included, in their statements of purpose, the objective of participating in joint ventures with private industry.

For example, one of the stated goals of Quebec's Société générale du financement, as noted in its 1976 annual report, is "to take an active part in major new industrial projects involving, for the most part, utilization and processing of natural resources in Quebec." SGF's largest joint venture is the Donohue Company Limited. This company is 55% owned by SGF and 45% owned by two French companies, La Cellulose du Pin S.A. and Papeterie de la Seine S.A. Donohue, in 1975, made an agreement with British Columbia Forest Products Limited (partly owned by The Mead Corporation of the United States) to form a joint subsidiary — Donohue St.-Félicien Inc. — in the construction of a \$300 million pulp mill. SGF has publicly indicated its belief that, without its participation, the project would never have got off the ground — meaning that an estimated 950 new jobs and the resulting economic development of that region would have been lost. SGF has also indicated that the technical knowledge and marketing expertise obtained from the private company was fundamental in attracting

SGF's participation and in assuring the success of the project.

Another illustration of a province's use of a joint venture to promote resource and industrial development is the establishment of the Prairie Malt operations in Saskatchewan. A provincial study was carried out in 1973 to determine possible growth areas in selected farm-based industries. One of the study's recommendations was that it would be economically feasible to establish a malt factory. Private foreign and Canadian interests knowledgeable in the industry approached the provincial government, and the discussions led to the 50-50 joint ownership arrangement between the private investors and the Saskatchewan Economic Development Corporation.

The establishment of Petro-Canada in 1975 as a federal crown corporation to become involved in the many stages of the petroleum industry was intended to promote Canadian resource development and to ensure the existence of a significant Canadian participation in these key sectors in which foreign investment is so predominant. Another important purpose was for the federal government to acquire a better understanding of the operations of the industry. In the words of Donald Macdonald, then Minister of Energy, Mines and Resources, when he introduced into Parliament the bill to establish Petro-Canada: "A degree of knowledge and insight will be available which simply cannot be acquired by other means. This insight will extend to a first-hand experience of the effects of our own and provincial governments' policies to the benefit of all parties." Petro-Canada has taken responsibility for federal participation in several joint operations, the larger ones being the Polar Gas Project, Syncrude Canada Ltd., and Panarctic Oil Ltd. Many more joint-venture activities with private firms, especially in exploration, can be expected for Petro-Canada in the next few years.

The goal of "Canadian participation" or "local participation" in important Canadian industries is an explicit policy aim of the Canadian and provincial governments and might be regarded as the third reason why governments participate in joint ventures with private companies. Although governments would often be happier if the goal of "Canadian participation" could be achieved more frequently through the participation of private Canadian investors rather than governments, the fact of the matter, as noted earlier, is that governments are sometimes the only ones forthcoming to take up certain opportunities for joint ventures with foreign investors.

An example of such a situation occurred in 1976, when the Simpson Timber Co. (Alberta) Ltd., a subsidiary of a wholly

owned American firm, wished to establish a forestry complex in Alberta. The proposal came before the Foreign Investment Review Agency. As both the Canadian government and the Alberta government preferred to see some Canadian participation, the American firm agreed to accept the bid of the Alberta Energy Company to obtain a 40% interest in the complex. As mentioned earlier, the Alberta Energy Company is 50% owned by the Alberta government.

One should not underestimate the extent to which businessmen appreciate opportunities to develop their contacts at the various levels of government, and this goal is greatly facilitated through equity partnerships with governments or crown corporations. Mr. Walter Fischer, Chairman of Prairie Malt Canada Limited, believes that his company's involvement with the Saskatchewan Economic Development Corporation has assisted him in expanding his contacts with provincial authorities. Mr. George Hatton, a senior officer of SEDCO, pointed out to this writer that the Chairman of the Board of SEDCO is the provincial Minister of Industry and Commerce and that the Deputy Minister is also on the board. "Through the interaction between businessmen and these high government officials", observed Mr. Hatton, "there is a real input into government's thinking and understanding about business."

One concern that businessmen may have about being involved with government-supported companies is that the joint venture may be more carefully scrutinized than if it were totally in private hands. The press and public may more quickly point a finger at the company for allegedly "unsocial" activities. This possibility does not, however, seem to be a serious concern to most businessmen. As Mr. Hatton of SEDCO notes, "Businessmen accept the fact that a government agency lives in a fishbowl world. Therefore, both are willing to work towards finding socially acceptable solutions."

It would probably be incorrect to suppose that joint ventures in which government corporations participate must be "purer than pure" and obliged to demonstrate higher social and environmental standards than are required of private business by the laws or conventions of the community; or must maintain higher levels of employment than can be justified by business considerations.

As Mr. Joel Bell, Senior Vice-President of Petro-Canada, remarked: "Although Petro-Canada is guided by standards of good corporate citizenship, it is not its role to oblige its joint-venture partners to exceed the standards required by law or accepted as good practice by the industry. Petro-Canada does pursue sound and fair business practices, is a good

corporate citizen in every sense that any other corporation is expected to be, and expects to gain the respect of both the business community and the wider public."

Mr. Bell and Mr. Peter Powell, the latter a Vice-President of the Canada Development Corporation, both noted that once their corporations had established a reputation for using sound and fair business practices, then companies from the private sector treated their corporations in a normal business manner. This was substantiated by Mr. D. H.

MacAllan, a Vice-President of Imperial Oil, who commented that his company "approached Petro-Can in business dealings in the same way as it did any other commercial operator."

With no "inherent" reasons for conflict between government and business in their joint ventures, and with a number of potential advantages to be sought by both sides, there seems to be every likelihood that the noticeable trend towards government-business joint ventures in Canada will continue, and perhaps accelerate, during the next few years.

Photo: Energy, Mines and Resources



Mineral Exploration in Canada: the needs and the prospects

by Jan Zwartendyk

Some 200 new mines must be put into production in Canada before the end of this century if the country is to meet forecast domestic requirements and take advantage of its export opportunities for metals to the year 2000. This estimate refers to mineable deposits of copper, zinc, lead, uranium and molybdenum yet to be discovered, over and beyond those that have already been found and are likely to be developed into mines.

Exploration expenditures required in the search for mineable deposits of metals, industrial minerals, and coal are estimated to have to rise from current levels of less than \$150 million annually to some \$500 million annually (in 1975 dollars) in the 1990s. Whether such levels of exploration expenditures will be reached depends first of all on whether investors are confident that Canada's land mass continues to hold mineral resources in sufficient abundance and quality to justify the risks of large-scale exploration.

If the past and the present are any guide to the future, foreign investors will continue to be heavily involved in exploration activities in Canada. In 1975, for example, foreign interests accounted for at least one-half of the \$129 million spent in Canada in the search for new mineral deposits (excluding oil and gas) beyond the boundaries of properties with mines already in operation or being prepared for production.

Concerns for the limits to mineral resources

Much has been said and written in recent years about the growing need for mineral commodities by a rising world population. The demand curves are expected to go on climbing, not only in Canada but, even more so, in many countries to which Canada exports mineral commodities. In the early 1970s, the question of where all those mineral products were going to come from began to worry many people, even in Canada where previously it had not been given much serious thought. The country always seemed too vast to warrant any concerns about limits to mineral resources. ("Mineral" resources, in this article, are meant to exclude oil and gas.)

Such concerns began to spread, not because of anything the mining industry did or failed to do, but in reaction to a general feeling of alarm among some academics and industrialists from various countries about the future path of industrial development. The book *The Limits to Growth* (1972), which reported on the Club of Rome's project on the predicament of mankind, gained widespread attention and shocked many people into wanting to have a closer look at where consumption trends are taking us. (The Club of Rome is an international

group of 100 businessmen, scientists and professors.) *Limits to Growth* was meant chiefly to rattle us out of our smugness, in which it succeeded. The "desirable" rate of resource usage quickly became a subject of fierce controversy. There were those who saw mankind racing for the precipice, rapidly approaching the point of no return beyond which economic collapse on a worldwide scale would be inevitable because of crippling resource shortages. This doomsday view was vigorously rejected by the "cornucopians", who claimed that there was little reason to doubt man's ability to bring to bear the necessary ingenuity to any resource problems that might develop.

The word "reserves" may be misleading

It may be natural to worry about man's ability to deal with problems that have no precedents, but there is little excuse for feeding such worries by a misuse or misreading of statistics. In the minds of many, mineral "reserves" are mistakenly interpreted as an indication of all we think there is, and thus all that can ultimately be produced. Such a misunderstanding of the nature of mineral reserves is largely responsible for fears of "running out" of minerals.

The fact of the matter is that ore "reserves" of a country are, essentially, merely the sum of the working inventories of unmined ore of all existing and prospective mines in that country. Reserves are continually being diminished by mine production and replenished by the development of new reserves. It would be premature and uneconomic for a company to develop reserves at a mine — a costly process — beyond the needs of a rational mining plan; this would tie up capital unnecessarily and unproductively. Therefore, at any mine, an effort is made to maintain a reserves inventory which is the "best" size for that mine and which, given the characteristics of the orebody in question, is determined mostly by economic considerations. As a result of rising demand and the development of more mines in response to it, world reserves of practically all mineral resources, far from showing any signs of exhaustion, have historically risen with rising production rates.

Thus, if we wish to consider the foundation for long-run supply adequacy, our current reserves inventories alone cannot tell us much. It is necessary to look at "resources" as a whole. The concept of mineral "resources" is imprecise and much wider than "reserves"; it refers generally to all mineral concentrations, found and unfound, that are of current economic interest or may become so in the foreseeable future. Quantification of resources in the same way as reserves is,

and always will be, impossible. Making judgments, estimates, and guesses is the best we can do. The experts' views will differ. But what is clear is that an effective threat of physical limits is clearly unprovable.

The general outlook on Canadian resources of the major metals is that, as far ahead as one can reasonably try to look, Canada's enormous land mass will continue to offer many opportunities for discovering new deposits and developing new reserves of such metals. For the next two or three decades, which is as far ahead as we can hope to see, no fundamental problems are in sight for Canada that would be the result of a lack of resources of the major metals produced in the country. (See *A Summary View of Canadian Reserves and Additional Resources of Nickel, Copper, Zinc, Lead, Molybdenum* (MR 169), 1977.)

Our ability to explore and develop is the key to the future

Whether or not the mineral supply stream will be adequate will depend on the action taken by investors and on their judgment of future needs. In the case of Canada, these needs go well beyond satisfying long-term domestic requirements and include maintaining a sizable export sector of mineral commodities. Thus, the adequacy of future supply should not be equated solely with having sufficient minerals in the ground, as it depends also on our ability to discover, produce, process, and transport minerals within certain cost limits and at a required pace. The development of new mines is a process that is subject to our success at resolving such practical problems as mustering the necessary capital and labour. And one must bear in mind that the transformation from undiscovered resources to production capability may take as long as 20 years.

At the beginning of this article, it was stated that forecast demand to the year 2000 for copper, zinc, lead, uranium and molybdenum from Canadian mines calls for some 200 new mines to come on-stream in deposits yet to be discovered. This estimate is based on a study, made in the Department of Energy, Mines and Resources, which contained the generalized conclusion that, in addition to new mines likely to be developed in deposits already found, the total number of new metal mines required during the 25-year period 1976-2000 would be about the same as the number of new metal mines discovered during the 25-year period of 1946-1970 (a total of 228, disregarding iron mines). (See H. L. Martin, D. A. Cranstone, and J. Zwartendyk, 1976, *Metal Mining in Canada 1976-2000* (MR 167).) Although this study was done in the 1973-75 period

when the picture of the future growth in the world economy — and therefore of mineral demand — looked rosier than it does now, the amount of exploration required remains formidable.

The pattern of expenditures for general exploration in Canada for minerals (not considering oil and gas) shows that large sums continue to be committed to the search for new mineral deposits. During the period 1968-1975, such expenditures have fluctuated in the range of \$100-\$180 million annually (constant 1975 Canadian dollars). An all-time peak was reached in 1970, followed by a low in 1972. Since that year, expenditures have shown a persistent rise to 1975, apparently levelling off in 1976. The focus of mineral exploration tends to shift from one or more specific minerals to others, depending on market conditions and on the kinds of discoveries recently made. For instance, uranium exploration was vigorous in the early 1950s and is again now. Base metals are receiving less attention at this time because of low prices brought on by temporary oversupply as a result of lower-than-anticipated demand levels for copper, nickel and zinc.

As mentioned earlier, a rise in mineral exploration expenditures in Canada is required, from the current level of less than \$150 million to some \$500 million per year in the 1990s (1975 dollars). While this is a considerable increase in absolute terms, such rising annual expenditures would remain a fairly constant percentage of the value of annual mineral production, which is likely to grow at a comparable rate.

In summary, the rapid rate at which new mineral production capacity may be required in the 1980s suggests that much will have to be accomplished in the near future in mineral exploration and development in Canada. So far as fundamental shortages of mineral commodities are concerned, they seem unlikely. Unfortunately, many of us panic rather easily. We tend to become nervous at any new uncertainty that moves into the limelight. For instance, until some years ago, the long-term price of energy was seldom mentioned in connection with material adequacy. Now, having become a

prominent question mark, the price of energy is vying for first place among the factors alleged to threaten mineral supplies. Yet, it is obvious that man's talents and flaws play major roles in determining the "finiteness" of mineral resources, since it is our own behaviour that will determine how far the limits will be extended.

Canada, with its immense land mass, is fortunate in being able to offer an unusually large variety of mineral opportunities. The chief determinant of the adequacy of Canadian mineral resources will not be what is in the ground — we probably have not even begun to see any signs of limits on that — but what we are going to do about it. Foreign participants who wish to join with Canadians in exploring for and developing Canada's mineral resources may well find the enterprise highly rewarding.

Since the beginnings of the "limits-to-growth" controversy in the early 1970s, the focus of the debate has shifted from the stark issue of insurmountable physical limits towards a concern about the uneven global distribution of resources. We have moved onto political ground toward North-South questions between "rich" and "poor" countries. These questions are based on the common, but flawed, notion that the rich countries — which consume most of the world's mineral products — are relatively mineral-poor and satisfy most of their mineral requirements by importing from poor countries. In fact, world mineral production is dominated by five developed countries — the U.S., the U.S.S.R., Canada, South Africa and Australia, which are the major source of mineral imports for the industrialized countries. (See, for example, G. J. S. Govett and M. H. Govett: "The Inequality of the Distribution of World Mineral Supplies" in *CIM Bulletin* (the Canadian Mining and Metallurgical Bulletin), August 1977, p. 59-71.)



Photo: George Hunter

Capital investment projects in Canada

III. MANUFACTURING

This list shows major capital spending projects now in progress or proposed. Parts I and II (published in previous issues of *Foreign Investment REVIEW*) covered minerals, forests products, oil, gas and electric power. Part III covers the manufacturing sector and is limited to projects costing over \$3 million. Information on these projects has been obtained mainly from press reports verified, where necessary, by the companies concerned.

This report was prepared for *Foreign Investment REVIEW* by L. E. Dewis, Analyst with the Capital Expenditures Group, Economic Analysis Branch, Department of Industry, Trade and Commerce.

In the **manufacturing sector**, the value of new capital expenditure projects started or proposed in 1977 was nearly double the 1976 level. Steel and petrochemicals, in particular, showed substantial new investment.

New projects in the **steel industry** are expected to bring Canadian steel-making capacity to 20 million tons by 1980, compared with only 13 million tons in 1970. Steel companies in the IT&C large firm Survey of Capital Investment (October 1977) reported a 22% expected increase in investment in plant and equipment for 1978. In the Atlantic region, renovations are underway at the government-owned Sydney Steel Corporation to enable the company to produce slab steel, and a new steel plant on Cape Breton Island is under active consideration. A Quebec government study group has recommended that the province's steel production be tripled in the next 10 to 12 years with growth centered around Sidbec, the provincially owned steel company, which is at present expanding its Contrecoeur plant. The Ontario mills of three major Canadian steel companies are undergoing expansion or renovations. These three, together with Interprovincial Steel and Pipe Corporation Ltd. of Regina, Sask., are capable of furnishing major pipe requirements for any and all proposed pipeline systems. A new steel facility was completed at Edmonton, Alberta, late in 1977. The Government of Alberta has been attempting to diversify its resource-based economy by expanding its manufacturing base. As part of this policy the Government of Alberta was instrumental in creating Steel Alberta, a vehicle to pursue opportunities for steel development in the province. In British Columbia, a mini steel mill is under active study for Prince George.

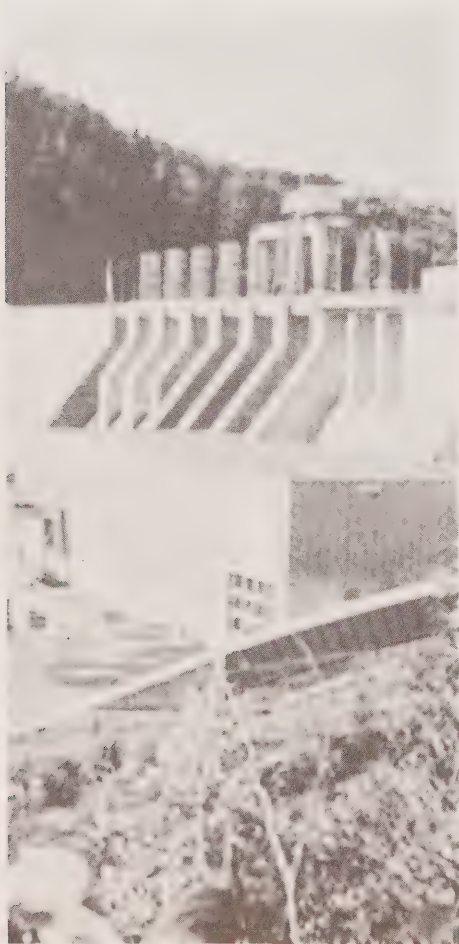
A major round of investment is taking place in Canada's three **petrochemical** centres. Following recent Montreal expansions by Gulf Canada Ltd. (ethylene) and Union Carbide Canada Ltd. (polyethylene, ethylene glycol), Hercules Canada Ltd. has recently brought a new 150 million pound-per-year polypropylene plant in Montreal into production. At Sarnia, Ontario, the Petrosar plant is now on stream and Union Carbide (polyethylene) and Polysar (styrene) are operating new world-scale plants. Also Du Pont has expanded polyethylene capacity in Sarnia. Shell Canada will complete a new 150 million-pound polypropylene plant in early 1979. Shell is doubling its Sarnia benzene capacity and Sun Oil Company is installing a benzene plant. In Alberta, the Alberta Gas Ethylene Company plant near Red Deer is due to begin operations in late 1978 with a capacity of 1.2 billion pounds per year. Construction of new ethylene glycol, ethylene dichloride and vinyl chloride monomer plants, as well as expansion of its chlor alkali facilities, are underway by Dow Chemical Company of Canada at Fort Saskatchewan, Alberta. In a joint venture in Alberta, Diamond Shamrock and Alberta Gas Ethylene are building a polyvinyl chloride facility. In addition, a number of benzene projects are being evaluated in Alberta.

Company and project description	Completion date	Cost (\$ million)	Location
Atlantic Region			
Canada Cement Lafarge Ltd. Proposed expansion	n/a *	25.0	Brookfield, N.S.
Combustion Engineering Superheater Ltd. Nuclear fuel fabrication	1978	4.5	Moncton, N.B.
Labatt Breweries of Canada Ltd. Proposed expansion, bottling plant	n/a	5.3	Saint John, N.B.
C.M. McLean Ltd. Proposed expansion, potato processing plant	n/a	8.0	New Annan, P.E.I.
Michelin Tires Manufacturing Company of Canada Ltd. Expansion, tire manufacturing	1979	25.0	Granton, N.S. Bridgewater, N.S.
St. Anne Nackawic Pulp & Paper Co. Ltd. Chloralkali and sodium chlorate plant	1980	10.0	Nackawic, N.B.
Sydney Steel Corporation Renovation to permit slab steel production	1979	19.0	Sydney, N.S.

* not available

Company and project description	Completion date	Cost (\$ million)	Location
Quebec			
Canadian Industries Ltd. Expansion, caustic soda plant	1979	100.0	Bécancour
Catelli Ltd. Food processing plant	1978	5.2	St. Hyacinthe
Co-Operative Agricole de Granby Dairy processing complex	1979	22.0	Granby
Dominion Textiles Ltd. Conversion for new product	1979	6.5	Drummondville
Du Pont of Canada Ltd. Polyester yarn plant	1978	55.0	Coteau-du-Lac
Métallurgie Farnham Inc. New iron foundry	1979	16.5	Farnham
O'Keefe Brewing Company Ltd. Expansion bottling and distribution plant	1978	22.5	Montreal
Pratt & Whitney Aircraft of Canada Ltd. Proposed re-organization of plant	n/a	3.2	Longueuil
Sidbec-Dosco Ltd. Steel mill expansion	1979	30.0	Contrecoeur
Ontario			
The Algoma Steel Corporation, Ltd. Rebuilding coke oven	1978	18.5	Sault Ste. Marie
Atomic Energy of Canada Ltd. Proposed plutonium extraction plant	n/a	1,500.0	n.a.
Canadian Gibson Distillery Ltd. Proposed new distillery	n/a	10.0	St. Thomas
Canadian Industries Ltd. CAP sensitive slurry plant	1978	6.9	Parry Sound
The Canada Starch Co., Ltd. Addition to produce liquid sweetener	1979	12.0	Cardinal
Canadian Pittsburgh Industries Ltd. New glass plant	1978	35.0	Owen Sound
Chrysler Canada Ltd. Expansion, engine plant	1978	40.0	Windsor
Cooper Bessemer of Canada Ltd. Proposed expansion	n/a	25.0	Stratford
Daymond Ltd. Aluminum extrusion and fabricating plant	1978	4.0	Chatham
Dominion Foundries and Steel, Ltd. Basic oxygen steel making plant	1978	133.0	Hamilton
New coke ovens	1978	109.0	
Eldorado Nuclear Ltd. Proposed uranium refinery	n/a	80.0	Port Granby
Erco Industries Ltd. Sodium chlorate plant	1979	10.0	Thunder Bay
ESCO Ltd. Expansion	1978	5.0	Port Hope
Fiberglas Canada, Ltd. New plant, fiberglas products	1979	25.0	Scarborough
Hudson Bay Diecastings Ltd. Expansion, zinc plating and buffing	1978	4.7	Bramalea
Inco Metals Company Steel fabricating and electric motor winding shop	1979	29.0	Copper Cliff Port Colborne
Proposed treatment plant	n/a	4.2	
John Labatt Ltd. and Redpath Industries Ltd. New plant, liquid sweetener	1980	60.0	London area

Photo: Ontario Hydro



Company and project description	Completion date	Cost (\$ million)	Location
Maple Leaf Mills Ltd. New oilseed processing plant	1978	30.0	Windsor
Schneider J.M. Ltd. Expansion, processed meat plant	1978	7.5	Kitchener
Shell Canada Ltd. Isopropyl alcohol plant	1978	45.0	Sarnia
Polypropylene plant	1978	100.0	
Standard Tube Canada Ltd. Proposed expansion	n/a	3.1	Woodstock
The Steel Company of Canada Ltd. New steel plant	1981	1,250.0	Nanticoke
Expansion	1978	22.8	Welland
Sun Oil Company Ltd. Petrochemical plant addition	1978	7.0	Sarnia
Thunderbrick Ltd. Proposed new brick plant	n/a	4.8	Thunder Bay
Union Carbide Canada Ltd. Expansion, carbon products plant	1979	4.9	Welland

Manitoba — Saskatchewan

Astral Refrigeration Manufacturing Ltd. Proposed plant to make refrigerators for recreational vehicles	n/a	3.4	Moose Jaw, Sask.
McCain Foods Ltd. New potato processing plant	1978	12.0	Portage la Prairie, Man.
Parsons and Whittemore Inc. Proposed new flax mill	n/a	12.0	Prince Albert, Sask.
Prairie Malt Ltd. Proposed new malting plant	n/a	15.0	Biggar, Sask.
Supercrete Ltd. Proposed expansion, concrete products	n/a	7.2	Winnipeg, Man.

Alberta — British Columbia

Alberta Energy Co. Ltd. Proposed benzene plant	n/a	225.0	Fort Saskatchewan Alta.
Alberta Gas Chemicals Ltd. Methanol plant	1978	62.0	Medicine Hat, Alta.
Alberta Gas Ethylene Ltd. Ethylene from ethane plant	1978	250.0	Joffre, Alta.
Canada Cement Lafarge Ltd. Expansion	1980	70.0	Exshaw, Alta.
Carling O'Keefe Ltd. New winery	1978	27.0	Surrey, B.C.
Celanese Canada Ltd. Proposed vinyl acetate monomer plant	n/a	20.0	Edmonton, Alta.
Diamond Shamrock Alberta Gas Ltd. Polyvinyl chloride plant	1979	50.0	Fort Saskatchewan, Alta.
Dow Chemical of Canada, Ltd. Vinyl chloride monomer plant	1979	166.0	Fort Saskatchewan, Alta.
Ethylene glycol plant	1979	100.0	Alta.
General Foods, Ltd. New plant	1978	12.0	Lethbridge, Alta.
Inland Cement Industries Ltd. New cement plant	1980	60.0	Edmonton, Alta.
Palm Dairies Ltd. New milk processing plant	1978	12.0	Edmonton, Alta.
Polaris Steel Ltd. Proposed new mini steel mill	n/a	20.0	Prince George, B.C.
Union Carbide Canada Ltd. New gaseous oxygen and nitrogen plant	1979	25.0	Fort Saskatchewan, Alta.

Photo: George Hunter



Incentives to industry

The following is a regularly updated list of the major incentives to industry offered by the federal and provincial governments and available to both Canadian and non-Canadian investors. To qualify, companies must be incorporated in Canada.

FEDERAL GOVERNMENT INCENTIVES

Note: a number of programs which are cost-shared and jointly administered by the federal and provincial governments are listed only under **Provincial Government Incentives**.

Department of Industry, Trade and Commerce

Enterprise Development Program (EDP)

The program assists eligible manufacturing and processing firms to become more viable and internationally competitive through grants and loans. The grants are to help firms to develop proposals for project assistance, study market feasibility or productivity improvement, procure industrial design services, and develop or introduce new technology. Loans or loan guarantees assist restructuring or rationalization. Further grants or loans are also available to help firms to meet special problems or to further specific government objectives. **Contact:** Enterprise Development Board, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

Machinery Program

This program provides for remission of import duty on types of machinery not manufactured in Canada, when the importation of such machinery is vital to an enterprise. **Contact:** Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

Agricultural and Food Products Market Development Program (AGMAP)

Financial assistance to develop domestic and export markets for agriculture and food products. **Contact:** Program Unit, Agriculture Fisheries and Food Products Division, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

Other Programs

Financial assistance programs are also available for shipbuilding, defence production, fashion design, grains and oilseeds marketing and for export market development. **Contact:** Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

National Research Council

Industrial Research Assistance Program (IRAP)

Shares cost of selected research projects. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Pilot Industry/Laboratory Program (PILP)

Provides shared-cost research between NRC laboratories and industrial firms. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Department of Regional Economic Expansion (DREE)

Regional Development Incentives Program (RDIP)

The program provides grants and loan guarantees to foreign and Canadian firms undertaking ventures in designated regions in all provinces under the Regional Development Incentives Act. Incentives are provided principally to manufacturing or processing operations and loan guarantees are also available to certain new service facilities. The Montreal Special Area designated under the DREE Act is eligible for grants in certain manufacturing or processing sectors. **Contact:** Industrial Incentives Branch, Department of Regional Economic Expansion, Sir Guy Carleton Building, 161 Laurier Avenue West, Ottawa, Ontario, Canada K1A 0M4.

Federal Business Development Bank (FBDB)

Provides financial assistance to business, particularly small business, in the form of loans, loan guarantees, equity financing or leasing. Management services are also available to small businesses. **Contact:** Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.

Department of Finance

Guarantees loans up to \$50,000 from approved lenders to proposed or existing businesses whose actual (or estimated) gross revenue is less than \$1 million. **Contact:** Guaranteed Loans Administration, Department of Finance, Place Bell Canada, 160 Elgin St., Ottawa, Ontario, Canada K1A 0G5.

PROVINCIAL GOVERNMENT INCENTIVES

ALBERTA

Alberta Opportunity Company

Provides financing for Alberta manufacturing and service businesses through direct loans or guarantees of loans for fixed assets or working capital when funding is not available from conventional lending institutions.

Contact: Alberta Opportunity Company, Box 1860, Ponoka, Alberta, Canada T0C 2H0.

Canada-Alberta Subsidiary Agreement on Nutritive Processing Assistance

The maximum grant under this program is 35 per cent of the total capital required to build or expand a facility. The grant is restricted to nutritive processing operations in which raw or semi-processed products are physically or chemically altered, processed, or refined or made more marketable as nutritional products for humans, animals, or plants. The grants are available for operations anywhere in Alberta except Edmonton and Calgary. **Contact:** Executive Director, DREE Program, Agriculture Building, 11th floor, 9718 — 107th St., Edmonton, Alberta, Canada T5K 2C8.

BRITISH COLUMBIA

British Columbia Development Corporation

The corporation provides financing in the form of term loans, loan guarantees, performance bonds, deficiency guarantees, leasing of buildings and machinery, and in special cases, equity. While there is no limit on the amount of funds the corporation may provide, in large scale projects it prefers to provide assistance in conjunction with other financial institutions. BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the land development division. BCDC acts as project manager of large capital projects in British Columbia. **Contact:** British Columbia Development Corporation, 272 Granville Square, 200 Granville St., Vancouver, British Columbia, Canada V6C 1S4.

Ministry of Economic Development

The business development program provides assistance in marketing British Columbia-manufactured products outside

the province by providing financial support to businesses to participate in trade shows and trade missions outside Canada. It also provides a market development assistance program, a technical assistance program, a small businesses assistance program and a business information service on the availability and source of various forms of financial and other assistance to business. The new business service provides counselling and information about government regulations. **Contact:** Business and Industrial Development Branch, Ministry of Economic Development, Box 10111, 700 West Georgia St., Vancouver, British Columbia, Canada V7Y 1C6.

MANITOBA

Design Assistance Program

Cost-sharing of consulting and advisory services for market research, design and redesign of products and packages.

Contact: Manitoba Design Institute, 155 Carlton St., 5th floor, Winnipeg, Manitoba, Canada R3C 3H8.

Export Incentive Program

Cost-sharing of promotion for new export markets. **Contact:** Manitrade, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.

Manitoba Research Council

The Research and Development Assistance Program provides shared-cost assistance for research and development of new or improved products or processes. The council's Canadian Food Product Development Centre provides advice and in-plant assistance including laboratory work for food and feed industries. **Contact:** Manitoba Research Council, 155 Carlton St., 6th floor, Winnipeg, Manitoba, Canada R3C 3H8.

Manitoba Department of Industry and Commerce

The Feasibility Studies Incentive Program assists manufacturing and processing industries with shared-cost feasibility studies on establishing or expanding manufacturing. The DREE Application Incentives Program provides shared-cost assistance to employ outside consultants in the preparation of applications to the federal government's Department of Regional Economic Expansion programs for the establishment or expansion of manufacturing facilities. The Productivity Improvement Program provides shared-cost assistance to identify problems and obstacles to growth. The Manpower

Development Assistance Program provides cost-sharing of manpower development programs. **Contact:** Department of Industry and Commerce, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.

NEW BRUNSWICK

New Brunswick Industrial Development Board

Provides financial assistance to manufacturers or processors, normally in the form of a loan guarantee or direct loan. Administers a joint federal-provincial interest-free forgivable loan program oriented to small businesses.

Contact: Department of Commerce and Development, P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.

New Brunswick Provincial Holdings Limited

Will take an equity position in manufacturing companies locating in New Brunswick. **Contact:** N.B. Provincial Holdings Ltd., P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.

Research and Productivity Council

Provides technical support services for industry in New Brunswick, including engineering and problem solving, industrial research and development, and management consulting, on a cost-recovery basis. **Contact:** N.B. Research and Productivity Council, College Hill Road, Fredericton, New Brunswick, Canada E3B 5C8.

NEWFOUNDLAND

Newfoundland and Labrador Development Corporation

This joint federal-provincial corporation provides equity and loan financing up to \$1 million for establishing or expanding small and medium-sized businesses.

Contact: Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.

Department of Industrial Development

Approved financing of new or expanding business ventures in amounts of more than \$1 million. **Contact:** Department of Industrial Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7.

NOVA SCOTIA

Industrial Estates Ltd.

Long-term loans on 20-year first mortgages on 100% of the cost of new land and buildings of secondary manufacturers and up to 60% financing of new machinery with 10 years to repay. Minimum loan financing available under this program is \$150,000. **Contact:** *Industrial Estates Ltd, 5151 George St., Suite 700, Halifax, Nova Scotia, Canada B3J 1M5.*

Industrial Development Manager, Industrial Estates Limited, Niederkasseler Kirchweg 95, 4000 Düsseldorf 11, Germany

Industrial Loan Act, Industrial Development Act

Loans for new or expanding resource-based industries and tourist facilities at current interest rates. **Contact:** *Nova Scotia Resources Development Board, Bank of Montreal Towers, P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

Department of Development

The department offers a number of assistance programs to business and industry. These include: The Marketing Assistance Program, the Management Development Program, the Product Design and Development Program, the Rural Industry Program, the Opportunity Identification Program and the Industrial Malls Program. The Strait of Canso Development Office is a joint federal-provincial agency funded by the Department of Regional Economic Expansion and the Nova Scotia Department of Development. The deepwater port is particularly appropriate for the location of heavy industry, particularly as related to the petrochemical industry and "bulk supership" shipments. **Contact:** *Nova Scotia Department of Development, 5151 George St., P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

ONTARIO

Ontario Development Corporation

Programs include: industrial mortgages and leasebacks, export support loans, venture capital loans, pollution control equipment loans, loans to small businesses, tourist industry loans, and incentive loans to encourage industries to locate or expand in slow-growth areas of Ontario. **Contact:** *Ontario Development Corporation, Mowat Block, 3rd floor, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Ontario Industrial Training Program

Assistance for training programs to companies locating in areas where such

programs will help improve employment opportunities. **Contact:** *Ministry of Colleges and Universities, Industrial Training Branch, Mowat Block, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Retail sales tax exemption for production machinery and equipment

A retail sales tax exemption is granted to a manufacturer or producer who purchases machinery and equipment which alters the goods in process as well as a wide variety of mining, logging, waste removal and pollution control equipment and other types of machinery. **Contact:** *Ministry of Revenue, Retail Sales Tax Branch, Queen's Park, Toronto, Ontario, Canada M7A 1X9.*

PRINCE EDWARD ISLAND

Industrial Enterprises Incorporated

Provides assistance for capital expenditures in the form of first mortgage loans on real estate and/or equipment.

Contact: *Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0.*

P.E.I. Department of Industry and Commerce

The Industrial Assistance Program provides assistance in the form of forgivable performance loans to manufacturing and processing businesses. Where the maximum capital expenditure is \$25,000, eligible businesses may receive a maximum forgivable performance loan of \$12,500 or 25% of the total capital cost and up to \$2,000 for each new job created. The Service Sector Assistance Program provides assistance to primary resource industries and/or secondary manufacturers and processors to purchase new, used, or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. For a maximum capital expenditure of \$60,000, the amount of forgivable performance loan would be 25% of the approved capital costs to a maximum of \$30,000 and up to \$2,000 for each new full-time job created. Financing for these programs is on a joint federal-provincial basis. **Contact:** *Department of Industry and Commerce, P.O. Box 2000, 180 Kent St., Charlottetown, Prince Edward Island, Canada C1A 7N8.*

QUEBEC

Quebec Industrial Development Corporation (QIDC)

QIDC offers financial assistance to manufacturing projects in compliance with the industrial policies of the Quebec Ministry of Industry and Commerce.

Long-term financing of capital costs, reduced rates of interest and shared equity in manufacturing projects, are available. These forms of financial assistance are offered to most sectors of industry in Quebec by QIDC together with direct government grants offered by DREE's specially-designated zone in Montreal. **Contact:** *Quebec Industrial Development Corporation, 1126, Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.*

Quebec Ministry of Industry and Commerce

An industrial financing fund to encourage the development of small plants through fiscal abatement at the accrued rate of 25% annually and a tax rebate to encourage regional industrial development for the general industrial sector is available in addition to QIDC development assistance programs. (See listing above.) The costs of exporting Quebec-manufactured products are supported by interim financing. The ministry also contributes financially to the organization of trade missions, feasibility studies and market surveys, promotes manufacturing under foreign licenses, conducts regional labour surveys, and studies problems related to industrial productivity, at the request of potential investors. The ministry maintains permanent economic delegations in New York, Boston, Chicago, Dallas, Los Angeles, Toronto, Brussels, Dusseldorf, London, Milan, Paris, and Tokyo. **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned societies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

SASKATCHEWAN

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial land for lease or sale. **Contact:** *Saskatchewan Economic Development Corporation, 1106 Winnipeg St., Regina, Saskatchewan, Canada S4R 6N9.*

Book list

International business

The Board of Directors: Perspectives and Practices in Nine Countries

Bacon, Jeremy, and Brown, James K.
New York: The Conference Board Inc., 1977. Report No. 728

Explores the changing relationships between board of directors and management, with particular reference to three developments — workers as directors, two-tier boards, and the revival of board independence — and compares characteristics and practices of boards in the Federal Republic of Germany, Sweden, United Kingdom, France, Turkey, United States, Canada, Venezuela and Japan.

Multinational Corporations in Comparative Perspective

LaPolambara, Joseph, and Blank, Stephen
New York: The Conference Board Inc., 1977. Report No. 725

This report (the second in a series on the conduct of multinational enterprises abroad) compares U.S.-based multinationals with those based in other countries as to organizational structure and style, attitude to joint ventures, management policy, and effectiveness in analyzing host country environments.

Political Risks in International Business

Thunell, Lars H.
New York: Praeger Publishers, 1977

A statistical analysis of the relationship between investment decisions of multinational enterprises and host country political conditions.

International Intracorporate Pricing — Non-American Systems and Views

Arpan, Jeffrey S.
New York: Praeger Publishers, 1977

A study of the factors involved in the transfer-pricing decisions of non-American firms with subsidiaries in the United States, based on a sample survey of companies.

The Multinational Enterprise in a Hostile World

Curzon, Gerald, and Curzon, Victoria (editors)
Toronto: MacMillan Canada/Maclean-L Hunter, 1977

Academics, civil servants and journalists discuss some of the areas of conflict between state and multinational enterprise.

The Case for the Multinational Corporation

Madden, Carl H. (editor)
New York: Praeger Publishers, 1977

Papers presented at the National Chamber Foundation's National Conference on Multinational Corporations for Corporate Leaders, November, 1975. Subjects include transfer-pricing policies, effects of investments on the economies of host and parent countries, tax policies affecting multinational corporations, and other current questions.

In Defence of Multinationals: The Myths, the Realities and the Future

Roach, E. Hugh
Toronto: Canadian Institute of International Affairs, 1977

A short rebuttal of some of the common criticisms of multinationals in such areas as ownership, employment of nationals in management, disclosure of financial data, economic impact on host countries, technology transfer and intracorporate pricing.

Multinationals from Small Countries

Agmon, Tamir and Kindleberger, C.P.
Cambridge, Mass.: The MIT Press, 1977

Papers presented at a 1976 conference sponsored by the Center for International Studies and the Sloan School of Management at M.I.T. on aspects of the operations of international firms — headquartered in small countries, including developing countries.

Canada: Business, Investment, Government Policy

Assessing Trends in Canada's Competitive Position

Frank, James G.
Ottawa: The Conference Board in Canada, 1977

An examination of recent trends in the competitiveness of Canadian industry compared with its counterparts in the United States. The analysis focuses on two determinants of competitiveness — trends in relative labour costs and in relative productivity levels.

Sources of Venture Capital in Canada

McQuillan, Peter, and Taylor, Howard
Ottawa, Department of Industry, Trade & Commerce, 1978

An outline of the policies and practices of venture capitalists, with profiles of venture capital groups in Canada, as well as a survey of other sources of financing available to business.

Canadian Directorship Practices: A Profile

Ferrari, Leslie Ann
Ottawa: The Conference Board in Canada, 1977. Canadian Studies: No. 45

Results of a survey of Canadian companies, including foreign-owned firms, on the characteristics of their boards of directors. The report shows the size of boards, numbers of inside and outside directors, citizenship and residence of inside and outside directors and stock ownership requirements.

The Availability of Capital to Fund the Development of Canadian Energy Supplies

Downs, J. R.
Calgary: Canadian Energy Research Institute, University of Calgary, Alberta 1977

Outlines the scale of investment required for future energy development in Canada and examines the likely sources of funds, with special reference to the financing problems and issues that will arise in each major energy sector.

Oil in the Seventies: Essays on Energy Policy

Watkins, G. Campbell and Walker, Michael (editors)
Vancouver: The Fraser Institute, 1977

Essays by Canadian and American authorities on Canadian demand for energy, oil and gas prices in Canada, government enterprise, multinationals and the financial position in the petroleum industry.

Government Support of Scientific Research and Development

McFetridge, D. G.
Downsview (Ont.) and Buffalo (N.Y.): University of Toronto Press, 1977

An assessment of Canadian government policies in support of research and development, and of alternative policies.

Statistical tables

QUARTERLY FIGURES

TABLE 1 — SUMMARY

REVIEWABLE ACQUISITION CASES

	1976		1977			
	third quarter	fourth quarter	first quarter	second quarter	third quarter	fourth quarter
Total	45	58	41	60	80	80
Industry						
Primary	4	3	3	2	11	4
Manufacturing	28	29	16	27	28	34
Construction and services	13	26	22	31	41	42
Country of control						
United States	28	40	25	40	55	52
United Kingdom	7	8	10	10	9	11
Other Europe	8	9	6	4	16	14
All other	2	1	—	6	—	3

REVIEWABLE NEW BUSINESS CASES

	1976		1977			
	third quarter	fourth quarter	first quarter	second quarter	third quarter	fourth quarter
Total	64	61	62	93	86	87
Industry						
Primary	3	5	3	6	8	5
Manufacturing	17	17	16	25	29	25
Construction and services	44	39	43	62	49	57
Country of control						
United States	31	28	35	48	52	49
United Kingdom	7	6	5	11	6	8
Other Europe	17	23	15	24	21	25
All other	9	4	7	10	7	5

ANNUAL FIGURES

TABLE 2 — OUTCOME OR STATUS

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Reviewable new cases	102	166	171	261
Carryover from previous period	—	51	55	67
Total of above	102	217	226	328
Total resolved	51	162	159	277
Allowed	33	116	124	232
Disallowed	9	21	19	21
Withdrawn	9	25	16	24
Carried over to next period	51	55	67	51
Allowed cases as percent of resolved	65%	72%	78%	84%

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Reviewable new cases	6	196	328
Carryover from previous period	—	6	60
Total of above	6	202	388
Total resolved	—	142	336
Allowed	—	115	297
Disallowed	—	9	12
Withdrawn	—	18	27
Carried over to next period	6	60	52
Allowed cases as percent of resolved	—	81%	88%

† Provisions for review of acquisitions came into force April 9, 1974.

* Provisions for review of new businesses came into force October 15, 1975.

TABLE 3 — COUNTRY OF CONTROL

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Total	102	166	171	261
United States	61	116	109	171
United Kingdom	21	15	23	40
Other Europe	15	27	34	41
Belgium	1	2	1	2
Denmark	—	—	—	2
France	3	6	6	6
Germany, West	5	2	10	15
Italy	—	2	1	3
Liechtenstein	2	2	—	—
Luxembourg	—	—	3	—
Netherlands	—	5	—	4
Norway	—	1	—	—
Sweden	—	2	9	2
Switzerland	4	5	4	7
All other	5	8	5	9
Australia	2	1	—	1
Bermuda	—	2	1	—
Japan	2	2	3	3
Others	1	3	1	5
Allowed cases as percent of resolved	%	%	%	%
United States	65	77	73	91
United Kingdom	70	79	82	95
Other Europe	71	50	86	90
All other	50	30	100	80

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Total	6	196	328
United States	4	90	184
United Kingdom	—	22	30
Other Europe	1	63	85
Belgium	—	1	—
Denmark	—	5	6
Finland	—	1	1
France	—	9	17
Germany, West	—	22	26
Greece	—	—	1
Italy	1	9	10
Liechtenstein	—	2	—
Monaco	—	—	1
Netherlands	—	2	3
Norway	—	—	3
Spain	—	1	—
Sweden	—	3	9
Switzerland	—	8	8
All other	1	21	29
Australia	—	2	3
Hong Kong	—	3	3
India	—	3	1
Japan	—	4	10
Others	1	9	12
Allowed cases as percent of resolved	%	%	%
United States	—	73	88
United Kingdom	—	93	82
Other Europe	—	82	94
All other	—	95	77

* Provisions for review of new businesses came into force October 15, 1975.

TABLE 4 — INDUSTRIAL SECTOR

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Total	102	166	171	261
Primary	15	18	15	20
Agriculture	2	—	2	3
Forestry	3	1	—	1
Fishing and trapping	—	1	—	1
Mines, quarries, oil wells	10	16	13	15
Manufacturing	47	82	93	106
Food and beverage	5	10	9	15
Tobacco products	1	1	—	—
Rubber and plastic products	2	2	3	6
Leather	1	1	1	—
Textiles	2	—	2	4
Knitting mills	1	1	—	1
Clothing	—	2	1	—
Wood	5	6	2	5
Furniture and fixture	—	2	4	2
Paper and allied	1	2	1	5
Printing, publishing, and allied	—	3	1	2
Primary metal	—	3	7	2
Metal fabrication	2	6	12	9
Machinery	5	11	4	9
Transportation equipment	8	6	3	5
Electrical products	1	9	11	11
Non metallic mineral products	8	3	9	5
Petroleum and coal products	—	—	2	1
Chemical	3	11	15	10
Miscellaneous	2	3	6	14
Construction and services	40	66	63	135
Construction	2	2	2	3
Transportation, communication, utilities	6	6	9	10
Trade	18	37	38	73
Finance, insurance, real estate	10	14	8	16
Community, business, personal services	4	7	6	33

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Total	6	196	328
Primary	—	12	22
Agriculture	—	2	5
Forestry	—	—	2
Fishing and trapping	—	—	1
Mines, quarries, oil wells	—	10	14
Manufacturing	2	67	95
Food and beverage	—	3	7
Tobacco products	—	—	—
Rubber and plastic products	—	3	4
Leather	—	—	1
Textiles	—	2	4
Knitting mills	—	—	2
Clothing	—	2	3
Wood	—	2	2
Furniture and fixture	1	2	1
Paper and allied	—	1	2
Printing, publishing, and allied	—	—	—
Primary metal	—	5	6
Metal fabrication	1	10	13
Machinery	—	5	14
Transportation equipment	—	1	6
Electrical products	—	7	5
Non metallic mineral products	—	3	5
Petroleum and coal products	—	—	—
Chemical	—	6	3
Miscellaneous	—	14	17
Construction and services	4	117	211
Construction	—	4	4
Transportation, communication, utilities	1	10	5
Trade	1	68	131
Finance, insurance, real estate	1	10	17
Community, business, personal services	1	25	54

* Provisions for review of new businesses came into force October 15, 1975.

Foreign Investment Review Agency Publications*

- Foreign Investment REVIEW
 - a quarterly journal on investment conditions in Canada
 - L'investisseur étranger
 - French language edition of Foreign Investment REVIEW
 - Annual Report 1974/75
 - Annual Report 1975/76
 - Annual Report 1976/77
 - Foreign Investment Review Agency Information Kit (Red) — of particular interest to lawyers and consultants.
 - Contains
 - Businessman's Guide to the Foreign Investment Review Act
 - A Guide to Filing Notice with the Foreign Investment Review Agency
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FOREIGN INVESTMENT REVIEW

A quarterly journal on
investment conditions in **CANADA**

Summer 1978 Vol. 1, No. 4

The Canadian experience of Marks and Spencer
Licensing agreements in Canada
Tax considerations for investment



FOREIGN INVESTMENT REVIEW

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conditions in Canada

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The Matagami-Radisson highway.

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Foreign Investment
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FOREIGN INVESTMENT REVIEW

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ECONOMY

Federal and provincial budgets

Recent Canadian federal and provincial budgets have generally sought to contain government expenditures while giving some impetus to economic recovery by stimulating consumer and business spending.

The stimulus to consumer spending in the federal budget took the form of a proposal to bear part of the cost of a temporary reduction in sales taxes, which in Canada are levied by the provinces. Sales taxes were then reduced or selectively eliminated for varying periods in all provinces (except Alberta which has no retail sales tax). In addition, some provinces, notably Saskatchewan, Manitoba, Quebec and New Brunswick, reduced personal income taxes.

The federal budget brought down on April 8th by Finance Minister Jean Chrétien contained tax provisions of interest to business in three specific areas: industrial research and development, oil extraction, and railway equipment. These measures included:

- Deduction from income of 50% of any increase in research and development expenditure over the average level of the previous three years. This allowance, which is to be available for 10 years, is in addition to existing incentives that included a 100% write-off of R & D expenditures, investment tax credits of 5 to 10 percent, and direct assistance programs.
- More generous depletion allowances — up to 50% of total income — for qualifying investments in non-conventional oil projects.
- A higher depletion allowance — \$1 for every \$2 spent — for machinery and equipment for enhanced recovery systems in the petroleum industry.
- Heavy-oil upgrading plants now to be treated as manufacturing plants, eligible for fast write-offs and the reduced tax rate.
- Additional depletion allowances of 6% on railway capital expenditures undertaken before 1983. This measure is intended to improve the railway system and benefit suppliers of railway equipment.

While the federal budget contained no special incentives to mining, the Minister noted that the government is proceeding with a review of mining taxation. The On-

tario provincial budget, meanwhile, gave the mining industry a number of tax concessions worth about \$5 million.

Economic Council of Canada to monitor wages and prices

Canada's wage and price controls, started in October 1975, are now in the process of being gradually phased out. All income earners and companies will be free of controls by the end of this year. But the Economic Council of Canada has accepted the new additional role of monitoring wage and price developments.

The Economic Council, an advisory group of leading Canadian businessmen, economists, and others, was established in 1963 by the federal government to advise and recommend on how Canada could achieve high levels of employment and economic efficiency and a consistent high rate of growth. The Council was requested to take on its new role by Prime Minister Trudeau following his meeting with provincial premiers in February. In assigning the Council its new mandate, the Prime Minister spelled out the specific duties to include:

- publishing of studies and reports on general developments affecting prices, incomes or productivity;
- monitoring of changes in prices, incomes or productivity and determining and analyzing the reasons for such changes;
- inquiring into the structure and operations of markets and recommending possible improvements that would contribute to lower rates of inflation or increased productivity.

A new unit of the Council, with its own staff and director, has been formed to take on the monitoring function.

Dr. Sylvia Ostry, Chairman of the Economic Council, has indicated that the new unit will focus on the "macro" rather than "micro" aspects of the postcontrols period — that is, on the broad situation affecting inflation and productivity rather than on specific price and income decisions. "We would want to look at major developments in productivity, price, and income movements and to do sectoral analyses which are not done in regular fashion and a range of analyses on such subjects as what the consumer price index really means in a period of rapid inflation."

The Economic Council will rely on information that is publicly available or that can be obtained from government departments such as Statistics Canada and Labour Canada. The Council has no power to hold its own inquiries, but it can recommend to the government that a special inquiry commission be set up.

The monitoring role of the new unit will continue until the end of 1981.

Capital spending and profits to rise

A federal Industry, Trade and Commerce survey of some 300 large companies in Canada indicates that they plan to increase their capital spending in 1978 over 1977 by 13.1% in current dollars and 5.5% in real terms. This compares with the previous year's increase of about 4% in real terms. Companies covered in the survey, which was conducted in late March and early April, account for over two-thirds of Canada's nonfarm business outlays on new plant and equipment.

The capital goods inflation rate assumed in corporate budgets was, on the average, 7.6% for 1978 compared with 8.5% for 1977 in the similar survey a year earlier. The recent survey reflected improvements in several other conditions besides prices — notably in profit expectations and exports.

Profitability is expected to improve by a rising proportion of companies — following a sharp rise in actual profits in 1977. In the recent survey, a profit improvement in 1978 over 1977 was expected by 60% of companies (with 14% expecting no change and 26% expecting a decline), and a profit improvement in 1979 over 1978 was expected by 76% (with 12% expecting no change and 12% expecting a decline). It thus appears that 1979 is shaping up as the best of several consecutive years of strong profit gains.

For manufacturing firms in the survey, current dollar investment is planned to rise by about 19% in 1978 over 1977, compared with an estimated actual increase of 8% in 1977. Actually, larger-than-average increases are expected in most manufacturing industries, but the overall average is dampened by a levelling out of expenditures in two large sectors — chemicals and forest products.

Outside manufacturing, large expenditure increases are planned for pipelines, electric utilities, and finance and trade, while declines are expected for the oil and gas and mining industries.

For foreign-controlled firms in the survey, the planned expenditure increase for 1978, at 7% in current dollar terms, is not as large as the total 13.1% for all firms in the survey. However, the planned increases in manufacturing are just about as large for the foreign-controlled as for all manufacturing firms in the survey. The overall increase for foreign-controlled firms is moderated by relatively weak expectations in certain large sectors, such as oil and gas and forest products. In any event, the profit and expenditure prospects for foreign-controlled firms, as for Canadian-controlled firms, appear to indicate increases from 1977 through 1979.

Foreign direct investment rises

The flow of foreign direct investment into Canada amounted to \$410 million in 1977, according to preliminary data issued by Statistics Canada. This was in marked contrast to the previous year, which recorded statistically a "disinvestment" of \$295 million. The sharp upturn in 1977 confirms the judgment that the previous brief decline was mainly an "irregular" result of a number of large "non-recurring" transactions, namely purchases by Canadians of some Canadian assets of foreign-owned firms. As indicated in the Winter 1977/78 issue of *Foreign Investment REVIEW*, the "non-recurring" transactions amounted to about \$725 million in 1976.

Statistics Canada estimates that purchases by Canadians of foreign-owned Canadian assets declined to \$225 million in 1977. If these are excluded from the statistics, the "adjusted" figure for foreign direct investment in Canada is \$635 million or 1977, an increase of nearly 50% from the adjusted figure for the preceding year.

Portfolio investment inflows into Canada by non-residents amounted to \$5,778 million in 1977. This was \$3.3 billion below the record level of 1976, but far higher than in all previous years.

Foreign-controlled firms among largest in Canada

The proportion of foreign-controlled firms tends to be higher among large-size companies in Canada and to decline as the size range declines, according to a study by Statistics Canada of nearly 30,000 companies in Canadian manufacturing, mining, and forestry industries. Although the study was based on 1972 data, its conclusions are still applicable because the industrial structure changes very slowly.

Of the 100 largest companies in the three major sectors taken together, 66 were found to be foreign controlled. Of the largest 500 companies, 69% were foreign controlled; of the next 500, only 45% were foreign controlled. The proportion continues to decline with the size of firms: below the top 1,000, only 3.6% of companies are foreign controlled.

Multinationals are a strength to build on

Subsidiaries of multinational companies have special advantages which are an important strength in the industrial base of Canada (or any country in which they operate), and government policies should build on this strength instead of being concerned with who owns what shares, said Douglas Marrs, Chief Executive Officer of Westinghouse Canada Limited, in a recent public address entitled "Build on Strength".

Multinational companies realize, he said, that the role of their subsidiaries must change as the country develops and as its industrial policies change. And Canada must now reorient its economic policies to a strategy more in keeping with the country's changing position in the world. The key factors in this changing position are, he contended:

- A reduced ability to rely on raw material exports, because of the resources now being developed in many Third World countries.
- A reduced ability to rely on labour-intensive manufacturing industries, because these are increasingly being placed in low-wage countries or in developed countries that have achieved economies of scale by aligning themselves into trading blocs.

The new economic policies needed by Canada would, according to Mr. Marrs, encourage manufacturers in Canada to specialize, move into areas of excellence, and increase their competitiveness and participation in export markets.

The strengths of multinationals on which Canada should build, he said, are these:

1. The multinational is always looking around the world for host-country environments which are conducive to the receipt by subsidiaries of international product mandates or "world charters".
2. Many Canadian subsidiaries already have the facilities in place to accept world-

charter responsibilities for specialized product lines — responsibilities all the way from the research and development through to the after-sales service.

3. The research and development capability of the parent company is by no means usually an obstacle to the subsidiary's rapid expansion of technological capability — it can be a great advantage in a host country with a supportive economic environment.

4. Multinationals have worldwide sales networks that are usually prepared to work very hard on behalf of Canadian (or other) subsidiaries — and this is a major resource that Canada can utilize to its advantage.

LABOUR RELATIONS

Industrial relations climate

A study published recently by an economic research company takes issue with a prevalent view that Canada's industrial relations have been about the worst of any industrialized country except Italy.

The author of the new study, Paul Malles, while agreeing that the general industrial relations climate deteriorated during the late 1960s and early 1970s, maintains that international comparisons of strike-lockout data are at best uncertain. This is not only because of differences in statistical methods among different countries, but because of differences in structures of economies and in occupational compositions of labour forces.

The fact, according to the author, is that the number of Canadian workers involved in conflict situations as a percentage of the paid labour force is relatively low by international standards — much lower than in France, Italy, and Australia, and also lower than in Belgium, Denmark and Japan. He explains much of the loss of working time in Canada as the result of duration of strikes and lockouts. Duration is greater in Canada than in other industrial countries except the United States. It thus appears to be a North American phenomenon.

The author contends that if it were possible to reduce the duration of strikes by half, Canada's record of time lost through industrial disputes would drop to an insignificant level. Even now time lost through strikes and lockouts amounts to only about one-half of one percent of worked time.

Features

The Canadian experience of Marks and Spencer

by Charles J. Byron

In 1975, the most famous retail clothing chain in Britain, Marks and Spencer, was allowed, under Canada's Foreign Investment Review Act, to acquire a majority shareholding in Peoples Department Stores Limited, a Montreal-based retailing chain. Peoples Department Stores was operating 50 variety stores under the "Peoples" name in Ontario, Quebec, and the Maritime provinces, 47 junior department stores known as "Walker/Smith's" in Ontario, and 35 women's wear stores known as "D'Allaird's" in major cities across Canada. It also shared ownership with Marks and Spencer in 17 St. Michael Shops, which sold Marks and Spencer's private-label clothing imported from Britain. Now, nearly three years after the acquisition, Marks and Spencer, although yet to show a profit in Canada, appears to have achieved a solid base for a highly successful enterprise.

This progress has not been easy. The company was forced to make adjustments and modifications to its store-expansion plans to suit changing economic conditions and the Canadian retailing marketplace. This meant that a couple of its commitments to the Canadian government could not be fully accomplished in the specified time period. A new round of discussions with the government resulted in a new agreement, one that reflected Marks and Spencer's more accurate growth expectations. All things considered, the story of Marks and Spencer's first years in Canada is a good example of how a foreign investor and a host country can work together to shape — and reshape — an investment proposal to the benefit of both.

A reputation for quality and value

In Britain the Marks and Spencer name has long been a household word. From modest beginnings in 1884 when founder Michael Marks set up a tiny market stall in Leeds under the banner "Don't ask the price — it's a penny," Marks and Spencer has burgeoned into a national network of more than 250 stores which attract 14 million shoppers weekly and take in sales of \$2 billion a year.

In its early stages, the firm prospered because of a simplified and modest price structure for its merchandise. But for a long time now its appeal has been based on selling products of recognizable quality and excellent value. It offers its customers a select range (about 2,000 lines) of men's, women's and children's wear, textiles, footwear and foodstuffs. Although a good

part (28%) of sales are food items, Marks and Spencer's strength and public appeal continue to be in its textiles and clothing. All merchandise offered for sale is marketed under the company's exclusive "St. Michael" label.

Reputation built on control and coordination

In seeking to provide the consumer with quality and value, the design, production, and ultimate sales to the consumer, of St. Michael merchandise is tightly coordinated with textile mills, clothing manufacturers, and Marks and Spencer's retail operations. St. Michael merchandise is, first and foremost, designed to appeal to the broad public. Fashion extremes are shunned — because, says Patrick Murphy (Marks and Spencer's chief Canadian technical executive), "We are a fully planned business and are active followers of fashion. We do not plan to be fashion leaders." Each and every St. Michael product is designed and developed by Marks and Spencer's own Product Design Group according to strict specifications covering both manufacturing standards and the raw material content. Its people are extremely proud of the finished product. Quality control, for example, extends all the way from yarn production to the clerk at the cash register — "for if the customer picks up a flaw," says Patrick Murphy, "then we have failed."

Although goods are made up by an approved list of independent manufacturers, Marks and Spencer's people are quick to point out that items found to be not up to quality standards are quickly returned to suppliers at the latter's expense. Tony Orton, who heads up the Canadian Marks and Spencer operation, bluntly insists, "We are not prepared to offer faulty merchandise to our customers."

Marks and Spencer devotes an enormous amount of its resources to product design, technology and quality control, and has in recent years set up an Industrial Management Group to provide its suppliers with free advice on any management problem, whether it be production engineering, floor layout, or personnel. In Britain the idea of retailers dictating not only what products should be made but how they should be made was resisted for many years by textile manufacturers. Indeed, there was a time when the few suppliers willing to do business with Marks and Spencer were reluctant to admit it to anyone. But all that has changed. Despite the odd complaint about Marks and

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Spencer's high-handedness, suppliers cannot resist the temptations of long production runs and steady orders. And suppliers who have gone along with Marks and Spencer's approach have generally prospered with it.

The company's retailing methods too are quite different from North American norms. Store interiors tend to be plain and the merchandise presentation simple. Merchandise prices are everyday prices — there are no sales promotions, except to clear discontinued or seasonal lines, and media advertising is almost entirely restricted to new store openings and renovations. The stores do not offer any of the added services, such as credit and delivery, that are commonly expected of large North American retailers. Yet, however controversial the methods, the Marks and Spencer merchandising formula is obviously working — and the company continues to achieve a remarkable growth rate in Britain.

With this formula in mind, and with a moderate but growing volume of business in Canada, Marks and Spencer felt that its direct presence would fill a void in the Canadian retail scene. The Marks and Spencer people recognized that a lot of good-quality clothing was already available in the Canadian market. But they felt that most of the inexpensive clothing available was of inferior quality — what they refer to as “disposable clothing”. There was no doubt in their minds that Marks and Spencer would win out in Canada, because, says Tony Orton, “with today's inflation rates, the Canadian homemaker can no longer afford to buy disposable clothing’.”

Market strategy in Canada

Soon after the Canadian acquisition was completed, Peoples Department Stores was reorganized into three operating divisions: Marks and Spencer, Peoples, and D'Allaird's. Peoples and D'Allaird's would, for the time being, be left to continue business in much the same way as they had in the past, while 17 “St. Michael shops” and 47 “Walker/Smith's” stores would be brought together to form the basis of the Marks and Spencer Division. Initial efforts would focus on this new division, the first objective of which would be to achieve a higher level of acceptance of St. Michael products. It was intended that this would be accomplished through the gradual conversion of the Walker/Smith's stores to Marks and Spencer outlets and through the opening of new stores in suitable locations.

As a first step, the conversion process involved devoting a proportion of the selling space in the “Walker/Smith's” outlets exclusively to St. Michael merchandise.

This was the “shop within a store” technique which had worked for Marks and Spencer franchisees in other (export) markets, the idea being that as sales of St. Michael merchandise increased, additional space would be made available at the expense of less successful lines.

On the production side, Marks and Spencer would, through a newly created Canadian department set up along the lines of its U.K. Industrial Management Group, seek out Canadian textile mills and clothing manufacturers willing and able to supply St. Michael products. In the meantime, merchandise requirements would be supplemented by imports from Britain.

At that time, the Canadian textile and clothing industry was largely an unknown entity to Marks and Spencer. In view of a lifetime of problems in convincing British industry to cooperate with its methods and its exacting requirements, Marks and Spencer was understandably apprehensive about the Canadian industry's response. And Patrick Murphy admits quite frankly that “for new suppliers, the first 12 months with us can often be painful.”

Textile industry in Canada was co-operative and imaginative

Finding suitable Canadian suppliers, however, did not turn out to be the problem that was anticipated. Whereas the required co-operation and liaison between Marks and Spencer and its independent suppliers took many years to develop in Britain, it was largely accomplished in a matter of months in Canada.

Much to Marks and Spencer's relief, it found that despite the many problems facing the Canadian textile industry, a good many of the firms in it were much more innovative and imaginative than their British counterparts.

Riviera Slacks, Inc. of Toronto, is one such Canadian supplier. Bill Krangle, Riviera's Marketing Manager, is pleased with the relationship that has been built up. He notes that “Marks and Spencer do not buy garments; they buy production.” Specific examples of the benefits of doing business together include Marks and Spencer's specifying of finished cuffs on men's slacks — resulting in a substantial savings in material costs; the advantages of delivering garments on hangers as opposed to flat boxes — thereby eliminating unsightly creasing; and, generally, improvements in Riviera's production as a result of Marks and Spencer's attention to cut and design.

There can be little doubt about the company's commitment to the Canadian production of St. Michael merchandise, for it has on occasion, when unable to

source a particular fabric in Canada, imported the yarn, turned it over to Canadian textile mills for manufacture into cloth, and then given this to its Canadian clothing manufacturers to convert into the desired final product.

Marks and Spencer now has over 100 Canadian suppliers producing St. Michael merchandise. The suppliers constitute something like the top 10% of the Canadian textile and clothing industry. The response to Canadian production has been extremely favourable. Even in knitwear, for which British mills have long been renowned, the Canadian production of St. Michael's men's, women's and children's garments is increasing sharply — from 11,000 dozen garments last year to 30,000 dozen garments projected for this year. A portion of the increase will displace some 14,000 dozen garments imported from Britain.

Reaction in Marks and Spencer's British export office to Canadian-made merchandise has also been very encouraging: Canadian-made merchandise is now marketed in several countries in Europe, Central America, Africa and in Australia. “Last year,” says Tony Orton, “we exported half a million dollars of Canadian-made St. Michael textiles — and this year we should export over a million.”

The introduction of “St. Michael” foodstuffs — mostly convenience-type items, such as meat pies, and bakery products, including biscuits and candies — to the Canadian market was not contemplated in Marks and Spencer's original plans. Some items were, however, tried in an experimental way and are finding a high level of consumer acceptance. Currently, sales of foodstuffs account for 18% of Canadian sales and are mostly imported from Britain. Four Canadian firms, however, are now supplying a variety of meat pies, bakery products and honey. One of the company's current priorities is to find additional Canadian suppliers to produce other food items for the St. Michael line.

Problems were in store expansion

While the production side of Marks and Spencer's Canadian activities for both St. Michael clothing and foodstuffs was much more successful than had been expected, it became increasingly clear that the retailing operations were having major problems. The company's steps towards gradually converting the “Walker/Smith's” stores to Marks and Spencer stores, for example, were not producing satisfactory results. The concept of “a shop within a store” created a myriad of problems including duplicate buying, inventory control difficulties, and differing garment construction standards that confused

suppliers and consumers alike. And the number of product lines in the stores' merchandise catalogue was too large to yield an adequate turnover.

It was decided that if Marks and Spencer hoped to increase public awareness of what it had to offer, the conversion process would have to be completed more rapidly than had been planned. It was also becoming clear that the Marks and Spencer outlets in shopping centres and other high-traffic locations, where consumers could readily compare St. Michael merchandise with its competitors' products, were much more successful than its solitary downtown and main street locations, some of which have since been closed because they were unprofitable. This led the company to reconsider its expansion policy, which now calls for the opening of five or six stores a year in new or successful shopping malls.

By the end of 1976, the conversion of the "Walker/Smith's" stores had effectively been completed and the acquisition of suitable sites for new stores became a high priority. The losses incurred in the first six months of the year, mostly attributable to store conversions, amounted to over \$7 million. In the second half of the year Marks and Spencer broke even. But the company could not fully achieve, within the agreed time period, its commitment to the government to open 14 new Marks and Spencer outlets, convert 16 "Walker/Smith's" stores to Marks and Spencer outlets, and create 550 jobs. While 43 rather than 16 "Walker/Smith's" stores were converted, only 10 new stores were opened and 370 new jobs created.

A new FIRA agreement reflected more accurate plans for expansion

The Foreign Investment Review Agency, which had maintained close contact with the company, was well aware that Marks and Spencer was having problems. The Agency felt that the firm had made every reasonable effort to comply with its commitments — for example, two new store openings involving a significant number of jobs, which had been scheduled to open in 1976, did not take place because of construction delays. But the Agency felt, and Marks and Spencer agreed, that a new agreement should be negotiated which would more accurately reflect the company's plans for Canadian expansion and the potential benefits to the country. Both the Agency and Marks and Spencer were flexible in developing an agreement which would not in any way restrict the company's ability to grow and compete effectively, yet would be equal, if not superior, to the original agreement in terms of benefit to Canada. Such an agree-

ment was completed in early 1977; among its provisions were the following:

- an investment of \$1 million in 3 new stores in 1977 and an additional \$3 million for 12 new stores by 1980;
- 83 new jobs for Canadians in the new stores to be opened in 1977;
- obtaining from Canadian suppliers at least 70% of St. Michael textiles and clothing and at least 40% of St. Michael foodstuffs;
- using Marks and Spencer textile technology and industrial management expertise in the development of Canadian-made St. Michael merchandise;
- spending at least \$100,000 annually through 1980 on Canadian research and development in textile and clothing technology;
- promoting the export of Canadian-made St. Michael products;
- ensuring that a Canadian is elected and maintained on Marks and Spencer's board of directors in Britain.

So far the new agreement has worked well. All specific performance objectives to be fulfilled by 1977 were exceeded. For example, six new stores involving 222 jobs

were opened last year and the company's technology group spent more than twice the amount stated in its commitment for research and development.

Therefore, despite their earlier setbacks in new store openings and the closing of some unprofitable stores, Marks and Spencer's people are confident that the company has created the basis of a profitable enterprise and is firmly established in the Canadian retail market. It is too early to make a final determination of the full extent of the benefits to Canada that are likely to result from Marks and Spencer's presence here. Certainly, some of the evident impact on the Canadian textile and clothing industry — an industry which has fallen on hard times in recent years — is already striking. If, for example, Marks and Spencer had chosen to stay with its original schedule — which called for the production of 60% of its Canadian-made "St. Michael" textiles and clothing in seven years — its 1977 purchases would have supported about 250 production jobs. Instead, by accelerating Canadian sourcing to 70% within 18 months, its purchases now support some 900 Canadian production jobs. Moreover, Canadian suppliers can now benefit from being plugged into Marks and Spencer's marketing organization, which exports to 50 countries. In view of the encouraging response to Canadian-made St. Michael merchandise, exports and the related foreign exchange earnings seem very likely to continue to rise.



Photo: Gilles Gratton

When does a licensing agreement in Canada make sense?

by J. Peter Killing

The Marsland division of Leigh Instruments, in Waterloo, Ontario, is today one of the world leaders in optical character recognition (OCR) technology, the technology used to read postal codes in mail sorting equipment. With no significant U.S. or European competition, Marsland's potential market is huge. To date, 41 units, at approximately \$300,000 each, have been sold to the Canadian Post Office, and the probability of export orders is high. Yet only five years ago Marsland was not even considering the OCR business, and would have been very sceptical of predictions of their present success. The development is the result of Marsland's ability to take advantage of a good licensing agreement.

A licence agreement between two firms gives one of them access to the patents, know-how and possibly the trademarks of the other, for a specific number of years, in exchange for a royalty based on sales. When the agreement is successful, both parties benefit: the licensee gains a proven package of technology which may cut years off a program of diversification, and the licensor gains an income stream at little risk and cost. Not all agreements are successful however: sometimes licensing can work against, rather than for, the best interests of both parties concerned. This article discusses some of the factors that can make licence agreements appropriate or inappropriate in Canada.

An overview of licensing in Canada

The only comprehensive survey of licensing in Canada was carried out in 1972 by Statistics Canada. This survey of 6,000 Canadian enterprises showed 3,417 licence agreements in effect between 760 Canadian licensees and foreign licensors, at a net royalty outflow of approximately \$119 million per year. One-third of the licence agreements were between affiliated companies. A few simple calculations based on these statistics suggest that the average Canadian licensee has 4.5 licence agreements in effect, and sales under licence of about \$3.1 million, or just under \$700,000 per agreement. This assumes 5% on sales as an average royalty rate. The survey found that 77% of the licensors in the 3,417 agreements were American, 9% European, and 4% British; 16 of the licence agreements involved Japanese licensors.

As Table 1 shows, most licence agreements were in the manufacturing sector. The greatest use of licences was between U.S. licensors and Canadian manufacturing firms, and approximately 40% of these were between affiliated com-

panies. Just under half of all agreements restricted the licensee to the Canadian market.

Two different types of licence agreement are in common use, the *current technology* agreement and the *current and future technology* agreement. The difference between them is important.

In a current technology agreement the licensor transfers only those know-how and patent rights in existence at the time the agreement is signed. Any future development work must be done by the licensee. An example of such an agreement, again involving the Marsland division of Leigh Instruments, was the one in 1972 between Western Electric and Marsland which gave the latter rights to produce teletype terminals under approximately 30 Canadian Western Electric patents. Detailed drawings were supplied to Marsland by Western Electric, but rights to any further patents or know-how developed by Western after 1972 were withheld: any necessary refinements or developments to the terminal would have to be made by Marsland's own engineers. The only regular communications between the companies since the agreement has been the passing of royalty cheques from Marsland to Western Electric. Because the licence agreement gave no continuing help to Marsland, the firm has had to do all its own development work on the terminal and build up its own area of competence relating to teletypes. This new competence cost Leigh several million dollars, but the end result was a Canadian market share in excess of 90%, and a healthy program of exports.

In the current and future technology agreement, the licensor continues to supply the licensee with relevant product and/or process improvements as they are made. In Canadian licensees this continuing stream of information and help seems to have one of two effects. The firm is either lulled to sleep, becoming increasingly dependent on the licensor, or begins to develop its own technical skills, using whatever help it can get from the licensor.

Why do Canadian firms enter licence agreements?

Clearly, a significant amount of licensing is taking place in Canada. The Statistics Canada survey found that 300 firms entered into agreements or re-executed existing agreements in 1972. A partial listing of licence agreements by the Ontario Ministry of Industry and Tourism shows 185 agreements were entered in the two-year period 1975-76. The question is, why do Canadian firms enter licence agreements?

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In 1976 the author undertook the only in-depth study to date of firms manufacturing under licence in Canada (J. P. Killing, "Manufacturing Under Licence", *Business Quarterly*, Winter 1977). The author interviewed managers of 21 firms producing 62 products under licence agreements, and found that firms manufacturing under licence in Canada do so for three primary reasons: (a) to strengthen their existing business, (b) to diversify into products closely related to those already being produced, and (c) to diversify into products only loosely related to the existing product line. A secondary motive stated by some firms was that they wished, over time, to build up a research and development competence. A very clear relationship was found between the primary licensing motive and the type of agreement used, as shown in Table 2.

Strengthening the existing business: Licensing to strengthen an existing area of business is a relatively low risk, low return, proposition for the licensee. Generally firms are licensing to use competitors' patents because they have decided that this is cheaper than trying to design around them, or are adapting to industry product standards in situations where product standardization is needed. These firms are already competent to design, produce, and market the product in question. The purpose of the licence agreement is not to learn new skills but to obtain legal permission to use a patent. The costs and benefits of taking a licence in such a situation can be calculated with relative certainty. This use of licensing is felt to be entirely straightforward and appropriate, but it does not open up new areas of new business to the firm; it merely helps it to do a better job of something that it is already doing.

Closely related diversification: Using licence agreements to introduce products related to those already produced by the firm can open significant opportunities for growth. The risk being taken by the licensee in terms of possible failure of the new product are higher than in the licensing to strengthen the existing business situation described above, but is manageable because the area of new business is closely related to the firm's existing business, and thus judgments concerning the new technology and market are generally well made. The attraction of licensing in such a situation is that it can move a firm very quickly into a promising growth area at a lower level of risk than it would face if it were to undertake its own research and development. Firms using current and future technology agreements to produce closely related products are often trying to upgrade their in-house technical skills. Although the process is a long one, as much as 15 years in some cases, it can be done: the case of Rolls Royce, described later, is a good example.

Loosely related diversification: In this situation firms are manufacturing under licence products which require some skills unrelated to those existing in their firms. For this reason they generally use current and future technology agreements which allow the firms to rely on the licensor for new developments. These agreements, however, usually prevent the licensees from exporting. The future of firms using licensing in this way is not bright. The success of their products often depends, not on their own skills, but on the ability of the licensor to keep abreast of the competition. Not only are they unlikely to be able to compete on world markets but their position in the Canadian market may last only as long as tariffs remain at current levels. The fundamental problem is that the firms have been enticed into a new product area which they do not have the skills to support, because taking the licence agreement made it look like an easy transition. This type of licensing is not recommended, and any firm contemplating entering an agreement in this situation should be discouraged.

Licensing at its most successful: the Marsland story

Marsland's success with OCR technology, outlined at the beginning of this article, dramatically illustrates the power of a good licensing agreement when used by a competent firm, and the critical role which government purchasing can play. In 1972 the Canadian Post Office invited tenders for OCR equipment to be delivered over the following four years. At that time no Canadian firm was in a position even to consider bidding, but the Post Office required that the successful bid should allow for a portion of the equipment to be delivered by a Canadian firm. The winning combination was the Nippon Electric Corporation of Tokyo, with Marsland as the Canadian licensee. After extensive visits by Canadian engineers to Japan, and their Japanese counterparts to Canada, the technology transfer was made, and Marsland successfully completed its part of the contract (as did Nippon). Not content to stop there, however, Marsland has done its own research and development, working from the Japanese base to develop a "Mark 2" technology which will involve little, if any, royalty payment to the Japanese. It is with this technology that Marsland hopes to capture export markets. Their most significant competitor is already proving to be — Nippon Electric.

There appear to be three factors critical to the success of the Marsland venture:

- The foresight of the Post Office in specifying the Canadian content

component in the contract, and their willingness to pay a penalty in terms of price to ensure such content. It undoubtedly would have been cheaper simply to buy direct from Nippon.

- Nippon Electric's choice of Marsland as the licensee. Marsland had engineering skills related to those necessary to develop the new technology and thus was able properly to absorb and utilize it. Firms without related skills would have been in over their heads.
- The willingness of Marsland to invest in further research and development and strive to make the most of their opportunity. Too many other firms would have accepted the situation as a once-only deal, and then let it go.

This example illustrates licensing at its most successful, used for a related product diversification, to produce a product for a growing market, by a firm willing to invest in additional research and development to develop its own skills and carry out further product modification itself. The agreement is a current technology agreement and thus the licensee is free to export.

Why do foreign firms licence in Canada?

Foreign firms can penetrate the Canadian market by exporting, forming joint ventures, establishing wholly owned subsidiaries, and by licensing. Most firms consider that there are advantages and disadvantages to each form of market entry. Table 3 presents some of the options and the arguments for and against each as they might be seen by a foreign firm considering entry in Canada.

An examination of Table 3 suggests that foreign firms may choose to licence in Canada for several reasons. Firstly, the firm may be too small to have the capital and management expertise to establish a wholly owned subsidiary, or the Canadian market may be judged to be too small to warrant one. Secondly, firms may use licence agreements to see how their new product will sell in Canada, at little risk to themselves. (The danger to Canadian licensees in such a situation is that they will build a Canadian market for the product, only to have the licensor take over the market after the licence has expired.) A final reason to licence may be the hope that the licensee will make technical improvements on the licensor's products. About 25% of the licences in the Statistics Canada survey included a clause stating that technical improvements made by the licensee would accrue to the licensor.

Table 1
LICENCE AGREEMENTS INVOLVING CANADIAN FIRMS, 1972

	Petro- leum	Manu- factu- ring	Mining	Merchan- dising	Finan- cial	Other	Total
Licences reported	164	2,523	49	483	10	188	3,417
Licences by country of residence of licensor:							
Canadian subsidiary of foreign company	4	108	7	24	—	2	145
Other Canadian licensors	4	128	4	9	—	7	152
United States	142	1,893	29	394	9	156	2,623
United Kingdom	4	103	1	29	—	4	141
Europe	7	250	6	25	1	15	304
Japan	2	13	—	1	—	—	16
Other	1	28	2	1	—	4	36
Licences held from affiliates:							
In Canada	—	33	—	5	—	63	101
Outside Canada	38	751	1	308	3	53	1,154
Licences held from non-resident individuals or corporations and from Canadian subsidiaries of foreign companies that:							
Allow market access to:							
All countries	72	957	39	21	—	107	1,196
All countries other than source of licence	2	105	—	6	—	—	113
Same countries other than source of licence	8	263	1	22	1	7	302
Canada only	78	1,070	5	425	9	67	1,654
Specify mandatory source of supply of materials, components, sub-assemblies or equipment	3	227	3	36	—	8	277
Value of purchases from man- datory sources (\$ thousands)	50	47,219	42	17,581	—	612	65,504
Payments to non-residents under licensing agreements (\$ thousands)	2,186	95,764	237	13,912	416	6,357	118,872

Source: Statistics Canada, *Quarterly Estimates of the Canadian Balance of International Payments*, Third Quarter 1973.

Table 2
USE OF LICENCE AND LICENCE AGREEMENT TYPE

Licence agreement	Use of licence	
	Current and future technology	Current technology
Strengthen existing business	16	2
Closely related diversification	12	10
Closely related diversification	2	32
	30	44

Source: J. P. Killing, "Manufacturing Under Licence", *Business Quarterly*, Winter 1977.

A British-U.S. example of investment benefit from a licence agreement

A good example of a case in which the licensor benefitted significantly from the technical developments made by the licensee was the 1961 Rolls Royce agreement with Continental Motors of the U.S.A. to produce light aircraft engines. While the British firm had produced piston engines for cars, and marketed auxiliary equipment for light aircraft, it had never manufactured piston engines for light aircraft. The licence agreement was a current and future technology agreement, with rights to any development within the scope of the agreement made by either party to be given freely to the other. Because of Rolls Royce's familiarity with piston engine technology the firm's engineers were able to assimilate rapidly the flow of information from Continental. A Rolls Royce engineer was permanently located in one of Continental's plants to send information back to Britain using concepts and language familiar to the British engineers. In two years Rolls Royce was able to produce and obtain certification for its first engine produced under licence. By 1970 the firm was fully competent in the technology, and Rolls Royce and Continental jointly developed a new line of light aircraft engines in the early 1970s. Neither firm paid a royalty to the other on these engines. Thus the licensor, Continental, gained a competent partner who made it possible for a new line to be developed and manufactured in the United States.

Conclusions

As the examples presented in this article illustrate, licensing can be a beneficial activity for both licensors and licensees. Certainly the rate of new agreements (over 100 per year in Ontario alone) indicates that Canadian firms are well aware of this. For Canada as a whole licensing is a beneficial form of entry by foreign firms: it provides valuable technology that can lead to economic growth, without an increase in foreign ownership. Licence agreement may also stimulate domestic research and development, as was seen in the Marsland example.

There can be dangers in licensing, however, particularly for the licensee. One of these is that the firm will take a licence for a product which is too far removed from its existing set of skills. Firms can be lured by the prospects of new markets into products which they have not the strength to support, and consequently become totally dependent on the licensor. If the licensor falls behind other manufacturers of the product, so will the licensee. If the licensee decides to place more of its

product development effort on other areas of its product line the licensee may be out of luck.

The other danger is that licensees may view a licence agreement as a complete substitute for an in-house research and development program. Licensing is best used by a firm which does have a research and development competence in a related area. This is not surprising when the tasks facing the licensee are considered; they can be best accomplished if technical people with similar knowledge and backgrounds in each firm can speak to each other "in the same language". Clearly the licensee needs technical people: this is even more true if a current technology agreement is used and the licensee will have to carry out further product development.

In summary, licensing can be a very effective corporate strategy, and has the potential to be particularly beneficial in Canada. It is, however, a tool which must be employed with discrimination.

Table 3
MARKET ENTRY STRATEGIES

	<u>Advantages</u>	<u>Disadvantages</u>
Exporting	<ul style="list-style-type: none"> — no capital investment — no management required — leaves other options open — no political risk 	<ul style="list-style-type: none"> — vulnerable to changes in tariff, freight rate — vulnerable to local manufacturers starting up — "foreign made" may hurt sales
Wholly owned subsidiary	<ul style="list-style-type: none"> — potentially a high monetary payoff — the subsidiary may develop new business opportunities in Canada 	<ul style="list-style-type: none"> — capital investment required — management required — political risk of nationalization, devaluation, etc.
Licensing	<ul style="list-style-type: none"> — little management required — no capital investment — no political risk — possible technical gain from licensee — market knowledge may be gained 	<ul style="list-style-type: none"> — generally a low financial payoff — may be creating a competitor (the licensee)

OTHER LICENCE AGREEMENTS

Bombardier-MLW Ltd. has used licence agreements as part of its program to diversify away from dependence on snow-mobiles. In 1974 the company licensed subway car technology from CIMT-Lorraine, leading to a \$117.8 million contract to build cars for the Montreal metro. In 1977 the company negotiated an agreement with a subsidiary of American Motors to build transit buses. A bid has

been made to supply 1,200 of these buses, worth \$84 million, to Quebec.

Northern Telecom Ltd. recently renewed licence agreements with Western Electric to last until 1980. Northern has the largest industrial research laboratories in Canada, yet 50% of sales are still made under licence. In 1960 Northern designed only 6% of the products it produced, but intends that this proportion will rise to 70% by 1978.

Spar Aerospace Limited uses a licence agreement to diversify away from military work. In 1975 the company signed a licence agreement with Carl Hurth of Germany to produce transmissions for street-cars and light rail vehicles. The company already produces helicopter gears. Subsequent to the licence agreement, the company received a \$3.2 million order from the Toronto Transit Commission. The company is now examining possibilities of licensing other products from Hurth.



Photo: Department of Regional Economic Expansion

Tax considerations for investment in Canada

by E. Cal Cochrane

From an investor's point of view the tax climate of a country is often as important to his investment decision as the market conditions and supply of labour and materials. The Canadian tax system is one of the most sophisticated in the world and it is therefore one that merits close examination as part of the overall investment decision process. This paper discusses how a potential investor might structure his investment in a Canadian enterprise with special emphasis on the tax considerations for an investor who wishes to include other Canadian investors or employees as participants in the ownership of the enterprise.

Although there is no requirement under Canadian laws that a foreign investor must allow Canadian participation in his venture it has become increasingly popular — for reasons of access to established markets, shared technology and local financing — to invite Canadian partners into the investment. The involvement of Canadian partners in the inception, or their proposed involvement in the future, are important factors taken into consideration by the Foreign Investment Review Agency in assessing whether an investment is likely to be of "significant benefit to Canada".

Vehicles for new investment

The investor who decides to share the participation in a new enterprise with Canadians has several vehicles from which to choose. Some of the more common arrangements are:

- A. Formation of a new Canadian corporation with ownership split between the foreign investor and Canadians;
- B. Formation of a new Canadian corporation owned entirely by the foreign investor which would enter into a joint venture or partnership arrangement with Canadians;
- C. Formation of a joint venture or partnership that would be participated in directly by the foreign investor and Canadians.

The choice of one of those vehicles could have the effect of substantially altering the Canadian tax levied on the profits of the enterprise and the tax on the distribution of profits to the foreign jurisdiction.

There are distinctions for Canadian tax purposes between a "partnership" and a "joint venture" which would effect taxes primarily in the timing of deductions for capital cost allowance (tax depreciation on fixed assets) available to the participants. The tax differences and the legal aspects of joint ventures or partnerships should be examined with care. For instance, it is

possible for one or more of the participants to limit his legal liability under the arrangement to the amount of funds he has invested. Similarly, the use of a limited corporation as the partner or venturer could limit the risk of a participant. For purposes of this discussion joint ventures and partnerships will be referred to collectively as "partnerships". The investor must also review the laws of his own country to assess the legal and tax implications of the vehicle he chooses for foreign investment.

Comparison of vehicles

In the following comparison of the Canadian tax position resulting from each of the three investment vehicles described above, it has been assumed, for the sake of illustration, that the foreign investor wishes to own 70% of the equity and voting control of the new enterprise with Canadians owning the other 30% (as a private investment rather than through a Canadian Stock Exchange).

A. New Canadian corporation

In this example, the new corporation which would be owned 70% by the non-resident investor and 30% by Canadians would be a private Canadian corporation for Canadian tax purposes. Since the majority of the voting shares would be owned by non-residents of Canada the new corporation would not be a Canadian-controlled private corporation, a "CCPC". (It is important to note that a Canadian corporation will qualify as a CCPC as long as a non-resident does not *control* the corporation. Therefore, where the non-resident owns 50% of the voting shares and Canadian residents own the other 50% the company will qualify as a CCPC.) The major significance of not qualifying as a CCPC is that the profits of the corporation would be initially taxed at the highest Canadian corporate rate of 48%, whereas the profits earned by a CCPC are eligible for a much lower tax rate of 24% on the first \$150,000 of taxable income to an aggregate of \$750,000 of accumulated taxable income. The tax rate on profits above \$150,000 each year for a CCPC would be at 48%; however, the \$750,000 accumulation can be extended by the payment of dividends.

Note: The rate of 48% includes an assumed provincial corporate tax rate of 12%. Provincial corporate tax rates vary from 10% in Prince Edward Island to 15% in Manitoba and British Columbia. The initial rate may be reduced for companies that qualify as CCPC's. For example, the Ontario rate of 12% may be reduced to 9%, and the British Columbia rate from 15% to

12%. The low rate of 24% assumes a provincial rate of 9%.

The corporate rate may be reduced further through tax incentives. For example, the high rate of 48% may be reduced to a rate as low as 42% for manufacturing operations; similarly, the low rate of 24% could be reduced to 19% for manufacturing operations.

The distribution of profits by way of dividend from the Canadian corporation to the foreign investor is subject to Canadian non-resident withholding tax at 25%. This rate is reduced to 20% if the company has a "degree of Canadian ownership". In general terms, this condition is met if resident Canadians own 25% or more of the voting shares and equity of the Canadian corporation. The withholding rate may be further reduced by virtue of a tax treaty between Canada and the jurisdiction of the foreign investor. For example, under the Canada-U.S. Tax Convention the Canadian withholding rate is limited to 15% on dividends paid to a United States shareholder and would be reduced a further 5 points to 10% where the Canadian corporation has a degree of Canadian ownership. Other countries with which Canada has tax conventions are shown in the Table.

B. New Canadian corporation as partner

Assume that the foreign investor forms a new Canadian corporation (Co. X) that enters into a partnership arrangement with Canadian investors who participate through a second Canadian corporation (Co. Y) which qualifies as a CCPC. The 70% of profits of the partnership that are attributable to Co. X would be subject to the high corporate rate of 48%. However, the 30% of profits that are allocated to Co. Y would be eligible for the lower rate of 24% on the first \$150,000 of those profits since that company qualifies as a CCPC. If we assume partnership profits of \$500,000, the Canadian tax system would permit a reduction of tax by as much as 24% of \$150,000 (Y's share). In this example the use of a partnership of Canadian corporations, rather than one Canadian corporation, could mean a saving of \$36,000 annually.

Distributions of profits from Co. X to the foreign investor would be subject to withholding tax at 25% (unless reduced by treaty) since it would not have a degree of Canadian ownership. In many foreign jurisdictions the Canadian withholding tax can be utilized as a foreign tax credit against domestic tax on Canadian dividends or other foreign source income. This is particularly true where a tax treaty limits the withholding tax rate to 15%.

C. Direct participation in a partnership by the foreign investor

Where the foreign investor, as a foreign corporation, enters directly into a partnership with a Canadian, 70% of profits allocated to the foreign corporation would be subject to the high rate of tax of 48%. If the Canadian partner uses for this investment a Canadian corporation that qualifies as a CCPC, the 30% of profits allocated to his CCPC would be taxed at the low rate of 24% on the first \$150,000 of those profits. This result would therefore be identical to the amount of corporate tax in the previous example.

However, with such a partnership, the foreign participant may be entitled under the tax laws of his country to offset any start-up loss against profits his company has earned in the foreign jurisdiction. An initial loss incurred by a Canadian corporation under the examples in A or B would be of no immediate tax benefit to most foreign investors. That benefit would be available only when the loss is used against future profits of the Canadian corporation under Canada's tax-loss rules that permit a one-year carryback and a five-year carryforward.

On the other hand, profits allocated to

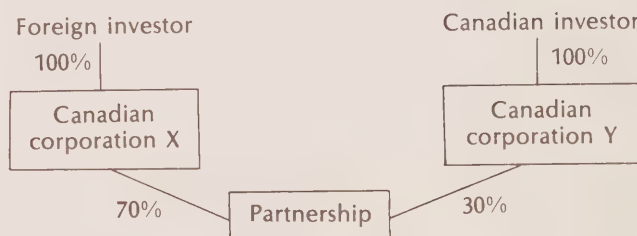
the foreign company would be subject to an additional Canadian tax referred to as a "branch tax." The branch tax is levied at 25% unless reduced by treaty (for example the branch tax rate for U.S. corporations is 15%). Since distributions from the partnership to the foreign corporate partner would not be subject to the non-resident withholding tax that applies to dividends, the branch tax was designed to compensate for a withholding tax on the distribution of profits. As such, the branch tax effectively applies to the foreign corporation's share of partnership profits after normal corporate tax less a deduction for the foreign corporation's share of partnership property that remains in Canada. Thus, in general terms, the branch tax on the foreign corporation's partnership profits would be imposed only as cash and other assets in excess of the original investment are remitted to the foreign jurisdiction. As with the withholding tax on dividends the tax laws in the jurisdiction of the foreign investor may permit a credit against domestic taxes for all or a part of the Canadian branch tax. Where such credits are available careful tax planning is necessary to ensure that the branch tax is imposed in a period when the credit can be utilized, giving consideration to timing of the recognition of income and expenses in the foreign jurisdiction and other similar factors.

Vehicles for new investment

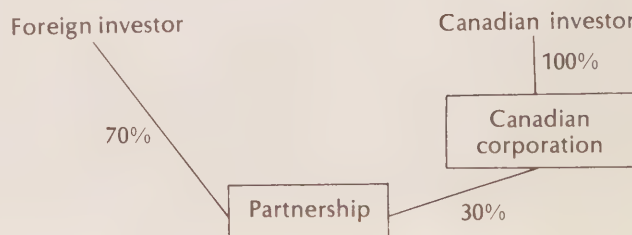
(A) New Canadian corporation



(B) New Canadian corporation as partner



(C) Direct participation in a partnership by the foreign investor



Employee participation

Stock Option Plan: A foreign investor may wish to invite employees of the enterprise to participate in its ownership either at the outset or during a specified future period. If the enterprise is a Canadian corporation this participation would commonly be arranged through a stock option program. Selected employees would be permitted to purchase shares of the corporation at a predetermined price and would have the option to make the purchase during a stated period of time. Canadian tax rules do not permit the employer corporation a deduction from income for the granting or exercise of stock options. The employee is not taxed on receiving the option but on exercise he will be taxed on the difference between the fair market value of the stock at the date of exercise and the amount he pays for the stock. This gain will be taxed as a benefit from employment. Some of the sting is taken out of this rather onerous result by a provision that allows the employee to purchase an annuity which will effectively defer the taxation of most of the deemed benefit to future years when the proceeds of the annuity are received in equal annual instalments. In this manner the employee can defer the taxation and smooth the tax rate applicable to the benefit over the period of the annuity which can be for a specified number of years up to 15 or for life with a guarantee period no greater than 15 years.

Where the employer corporation qualifies as a CCPC (no more than 50% of the voting shares owned by non-residents) a stock option plan receives more favourable treatment. The employee is not required to recognize the deemed benefit on exercise of the option as long as he deals at arm's length with the employer

and provided that he retains the stock for at least two years. Thereafter he would be taxed on a gain arising from the sale of the stock as a capital gain, one-half of which would be taxable for Canadian purposes. Thus, for employers and employees who meet this requirement the employee does not pay tax until the shares are sold and the gain between cost and the value of the shares at date of exercise is taxed at one-half the normal rate.

Deferred Profit Sharing Plan: At some future time the foreign investor may wish to involve employees in ownership of the corporation through a deferred profit sharing plan (DPSP). This is a registered plan that permits the employer an annual deduction for contributions up to \$3,500 per employee (or 20% of the employee's wages if that is lower). The contributions must be made out of profits of the employer but can be a fixed dollar commitment per employee. The employee is not subject to tax on the contributions or earnings of the plan but will be taxed as withdrawals are made.

There are prescribed investments that can be made by a DPSP. One of the most interesting investments permitted is in the shares of the employer corporation. In order to qualify, the employer must have established a track record for earnings or dividends in the past five consecutive taxation years. During at least four of those years the employer must have either had earnings of at least 4% of the cost of the shares which the DPSP would acquire or have paid a dividend on those shares at least equal to 4% of their cost. Thus, once this kind of track record is established the employer corporation can register a DPSP that permits the deduction of contributions and can receive the contributions back for treasury stock issued to

the plan (thereby causing no cash flow drain) while permitting the employee to acquire a stake in the company at no immediate personal tax cost.

Financing the enterprise

After choosing the vehicle for investment in Canada the foreign investor should examine the tax consequences of the form his investment will take. For example, if he chooses the structure described in A or B, he should be aware of Canada's rules on thin capitalization. These rules state that where interest-bearing debt is owing to the controlling non-resident shareholder or to non-resident related parties a portion of the interest charged on the debt may be disallowed for tax purposes as a deduction to the payor corporation. Interest is disallowed on that portion of the greatest amount of debt outstanding to these non-residents in the year that exceeds an amount equal to: $3 \times$ (the retained earnings of the corporation at the beginning of the year plus the paid-up capital of the corporation). Therefore, in a start-up situation the interest-bearing debt to the non-residents should not exceed 3 times the amount injected as paid-up capital of the company. Repayments by the Canadian company of debt and redemption of the capital can be made free of Canadian non-resident withholding tax.

Tax Conventions

Throughout this article there have been references to tax Conventions that Canada has with other nations and the effect they may have on limiting the tax on distributions to the foreign investor. These Conventions should always be examined since they may provide other benefits such as the limitation of Canadian withholding tax on interest paid to the non-resident and exemption from Canadian tax on a sale of all or part of the Canadian investment in the future. If the jurisdiction of the foreign investor does not have a tax Convention with Canada it may be possible to find a third country with which Canada and the foreign jurisdiction have Conventions and link them through a conduit holding company in the third country.

A potential investor should seek advice on the important aspects of the Canadian tax system particularly as they relate to special incentives that may be available in that particular field. These comments have focused on the structure of the investment especially where Canadian participation is desired. Other important Canadian tax incentives to investment — including accelerated depreciation allowances for equipment used in manufacturing and special incentives to investment in resource industries — were described in Foreign Investment REVIEW, autumn 1977.

Principal non-resident tax rates (in percentage) for some treaty countries

Country	Management fees	Interest	Rentals	Royalties	Dividends*
Australia	25	25	25	25	15
Belgium	25	15	25	10/25	15
Denmark	25	15	15	15	15
Finland	25	15	15	15	15
France	25	15/25	25	10/25	15
Germany (West)	25	15/25	25	15/25	25/15
Ireland	15	15	15	15	15/Nil
Japan	25	15	25	15/25	15
Netherlands	Nil	15/25	15	15/25	15/Nil
New Zealand	25	25	25	25	25
Norway	25	15	25	15/25	15
Sweden	25	15	15	15	15
Switzerland	25	15	10	10	15
United Kingdom	25	15	10/25	10/25	15
United States	15	15	15	15	15

*Where two rates are shown, clarification may be obtained from relevant articles of the Tax Convention or Agreements.

For corporations which have a degree of Canadian ownership the rate specified in the schedule will be reduced by 5%.

Source: Revenue Canada

The James Bay development: a photosketch

In 1972 the Quebec government set up the James Bay Energy Corporation to harness the La Grande River — a \$16.1 billion project that is expected to increase Quebec's output of electricity by up to 80% when completed in 1985. At about the same time the James Bay Development Corporation was formed to develop the infrastructure needed by the power project and to plan the orderly development of the natural resources of the region in a way that would respect the interests of the native people, Indians and Inuit, as well as the natural environment. In its six years of operation the JBDC has signed agreements with about 40 private exploration companies. Many foreign as well as Canadian investors are showing great interest in the vast region now opening up.



Forests and lakes stretch north to the edge of the Arctic tundra and cover a region almost one-fifth the total size of Quebec (that is, nearly one-half the size of France). The most visible natural resource of the region is its wood. The JBDC is planning to promote a pulp and newsprint plant in the Chibougamau area and is looking for other proposals for ways to make the best use of the rich forest resources. The potential of the region's mineral resources also seems enormous. In a small strip in the southern part of the territory, eight mining companies have produced \$1 billion worth of zinc, copper, lead, gold, silver and nickel — just an indication of the mineral wealth likely to exist in the rest of vast territory.



The great hydro project needed a huge infrastructure — and it serves the needs of resource exploration and development as well as hydro development. A 450 mile highway (see cover) links Matagami with the brand new town of Radisson, built in the wilderness to house the families of employees of companies working in the territory. Two new airports, at Radisson and Matagami, have regular service to the south provided by Quebecair and Nordair. Already, a tourist industry is starting in the once remote and inaccessible region.



The JBDC and its partners have already invested over \$22 million in mineral exploration. Probing scientists and rough drilling rigs are becoming a familiar sight as the mining companies prospect all over the territory. Drilling in the Lake Albanel region has indicated one of the largest reserves of iron-ore in Canada — over one billion tonnes of ore, averaging 31.3% in weight of recoverable magnetite ore. The region also shows great promise of rich uranium deposits. Results of preliminary geochemical exploration covering an area of some 222,700 square kilometers (86,000 square miles) and radiometric tests show a huge reserve of primary uranium. The JBDC is taking part in uranium exploration projects with private enterprise throughout the region: with Inco in the Lake Sakami area in the northwest; with SES (Séru Nucleaire-Eldorado Nuclear-SBDJ) along the La Grande, where drilling will take place in at least six areas showing indications of uranium; with Inco and Uranerz in the Otish mountains area, where strong concentrations have been found in two places; with Pancontinental and McDame, an affiliate of Cominco, in the southeast of the territory, and with Imperial Oil on two properties covering some 10,300 square kilometers (4,000 square miles). The possibility of establishing a uranium enrichment plant is being studied.



**Some of the corporations and groups
taking part in the James Bay area development**

Société québécoise d'exploration minière (SOQUEM)
Noranda Explorations Company Limited
Ducanex Explorations, New Jersey Zinc
General Crude Oil Company,
Selco Mining Corporation Ltd. and
Muscocho Explorations Ltd.
Beth-Canada Mining Company,
Groupe minier Sullivan Ltée, Brinex et Proginimes Ltée
Coopérative Minière de Cadillac
Kennco Explorations Ltd. and Brinex Canico
Canico and Uranerz Exploration & Mining Ltd.
Monexco Resources Ltd.
Canex Placer, Louisiana Lands, El Paso
Berqminex Associates (Serem,
Boliden-Preussag, Delaware Ventures)
Urangesellschaft
Seru Nucléaire (Canada) Ltée
Eldorado Nucléaire Ltée

Pancontinental Mining (Canada) Ltd.
and Mc Dame Explorations Ltd (affiliate of Cominco)
Falconbridge Nickel Mines
Lynx Canada Explorations Ltd.,
Dejour Mines Ltd. and Camflo Mines Ltd.
Kennco
Selco and Muscocho
Canico and Union Minière
Explorations and Mining Corporation Ltd. (Umex)
Canico
Compagnie Pétrolière Impériale Ltée
Meston Lake Resources Ltd.
Duval International
Seru
Matagami Lake Mines Ltd.
Falconbridge
Eldorado and Seru
Eldorado and Uranerz

Photos : James Bay Développement Corporation



GATT trade talks: implications for investment in Canada

by John Downs

The Multilateral Trade Negotiations now taking place in Geneva seek to reduce both tariff and non-tariff barriers to world trade. A successful outcome of the negotiations could have far-reaching implications for the pattern of investment in Canada.

The structure of investment in this country — as indicated, for example, by the pattern of trade — has already been greatly influenced by the large reductions in trade barriers that have been achieved since 1948. Merchandise exports and imports as a percentage of the output of the goods-producing industries have grown substantially. In 1962, the value of merchandise exports was only about 37% of goods output, and the value of imports was 36%; by 1976 the proportions had risen to 56% for exports and 54% for imports. Increased openness to trade has been a conspicuous and major factor in increasing the productivity and use of labour, capital, and resources.

From 1948 to 1978, real gross national product per capita in Canada more than doubled, from \$2,300 to \$5,100 per head in constant 1971 dollars. Much of this increase was due to capital formation, typically about 24% of GNP. This experience of rising affluence clearly related to the increasing openness of the world economy is important to the consideration of the current trade discussions, especially since the most recent period has been one in which many governments have been under pressure to resolve specific problems of industrial under-employment by resorting to protectionist measures. Canada could be a massive loser if the world trading system reverted to protectionism.

In January 1978 Canada agreed with the other main trading countries at Geneva on a working hypothesis which envisages the reduction of industrial tariffs by a weighted average of 40%, provided that certain other objectives are also achieved. Significantly, among these other objectives of the GATT countries is to reform the General Agreement in such ways as to reduce the use of non-tariff barriers (NTBs) and to stabilize the rules for world trade. Additional measures being considered would affect trade in agricultural and fishery products.

Canada itself has a number of export objectives that are so important as to be, from Canada's standpoint, conditions for the achievement of reciprocity in the exchange of concessions. One of these important Canadian objectives is the elimination of many of those foreign tariffs which appear on the surface to be low, but which actually provide a much larger amount of effective protection than their nominal rates would suggest. Access to large markets on equal terms with other countries' domestic industries would

facilitate specialization and longer production runs in Canadian plants, thus encouraging both the better use of existing plant and labour resources and the flow of new investment into new highly productive lines. In this connection, it should be noted, investment decisions would almost certainly be influenced far more by the complete elimination of low duties than by merely their reduction. To illustrate the breadth and importance of such possible tariff reductions, one might note that about 65% of Canada's dutiable exports (or roughly 20% of total exports) to the United States now enter that country at low rates of duty (5% or less) and that the United States has indicated its willingness to consider reducing or eliminating a large number of them.

Canada also seeks greater-than-average cuts for two selected trade groups — forest products and non-ferrous metals. The aim here is to reduce tariffs and NTBs to levels low enough to allow competitive Canadian industry to do more processing of natural resources in this country and additional related manufacturing.

As well, Canadian exporters could hope to benefit from the more general reduction of foreign tariffs and NTBs — to enhance productivity growth via specialization and two-way trade. Tariffs now applied by the big foreign importing countries to manufactured goods amount, on average, to almost 10%.

The prosperity of the trading countries, and especially that of Canada, depends on the resolution of three types of problem: structural, commercial, and cyclical. These problems are interdependent, and lack of adequate progress in solving any one could seriously hamper accomplishment in the others.

Structural change is a key issue

On the question of structural change, it is seen to be desirable that each country should move resources from industries or lines in which the country is less competitive into those in which it is stronger. Of course, no country wishes to subject its weaker industries to processes of rapid and brutal adjustment. However, fears expressed in Canada and elsewhere about the adjustment process are exaggerated. The greater danger would be to try to freeze the *status quo* by protecting weaker industries at the expense of the actually and potentially more competitive ones. Such a course would only perpetuate current problems of slow growth and low productivity and would make structural problems more difficult to solve when, sooner or later, they would have to be faced.

On the whole, the major countries have resolutely held to their agreed policy of

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moving towards freer trade and stabilization of rules. However, protectionist issues have recently become more acute in the wake of slow economic growth internationally. Several countries have imposed temporary measures — quotas, "trigger prices", and the like — to shelter specific industries against a decline in demand and an increase in import competition.

Against this background, the role of policies to facilitate and soften the difficult processes of change is a key one. Adjustment assistance programs are important existing instruments in most countries — for reasons in addition to that of trade liberalization. However, since freer trade opens the way to more effective use of resources, it enables adjustment programs to be administered with greater economic rationality and success. In Canada's case, programs of modest size already exist, and the government is considering more comprehensive measures to meet the emerging needs of the 1980s.

To facilitate an orderly adjustment process, the multilateral trade negotiations provide also for the phasing of tariff cuts over at least eight years — from 1980 to 1987. The period may be shorter for industries that are in a position to benefit from a more rapid reduction of barriers, and longer for other industries that may need more time to adjust.

Canadian trade and investment opportunities

The outcome of the current round of trade negotiations will affect Canadian investment opportunities in various ways.

On the assumption that the negotiations on low-tariff items will be relatively successful, it is clear that the improved access for Canadian goods will be extensive. To judge from existing trade patterns and tariff categories, some 200 foreign tariff categories relevant to Canadian exports would be affected. Table 1, for example, provides a summary analysis of U.S. imports of low-duty items from Canada in 1973.

Without attempting to make detailed judgments or to be comprehensive, one can describe the nature of some individual U.S. tariff items (all below 5%) covered in Table 1. Group B includes some processed goods, certain manufactures of pulp, a range of chemicals, siding and end-glued wood, certain manufactured papers, a number of machinery items and special function motor vehicles, steel wire rods, synthetic rubber, and articles of asbestos. Group C includes products such as office machinery, parts of aircraft and spacecraft, aluminum and alloys, copper and zinc. In total, the value of imports from Canada in Table 1 was about 10% of the value of Canadian exports (excluding oil) to all

countries — or more than the total of Canadian exports to Japan, Canada's largest overseas market.

Among these items are many lines in which Canadian costs could be reduced by re-organizing production towards greater product specialization to take advantage of wider markets. There are many additional items on which U.S. and other foreign tariffs could be reduced, and this would tend to create similar opportunities for Canadian industry. Once Canadian industry was organized to produce at closer to, or at, the lowest internationally attainable cost per unit, it would be in a better position to exploit market opportunities around the world. Moreover, during the next decade or two, export and investment opportunities are very likely to emerge even in lines which do not at present figure prominently in trade.

For Canadian producers, one of the beneficial fallouts from the reduction of foreign trade barriers would be an expansion of opportunities to sell more Canadian products abroad to offset Canadian defence purchases abroad. In the decade ahead, Canada plans to do a large portion of its defence spending in foreign coun-

tries — in order to get the best possible quality and terms. For balance of payment and employment reasons, Canada must arrange for a measure of offsetting sales by Canadian industry. And with freer trade, Canadian suppliers could develop a competitive base for permanent export business in civilian as well as military markets.

Other sector prospects

Clearly, a reasonable degree of success for Canada in sector negotiations would increase the scope for investment and trade in processed forest products and metals. Several of the major existing exports of highly to moderately processed products already have duty-free access to the U.S. market. The further thrust, now, is to create equally favourable access for products with a greater manufacturing content — prepared and pre-fabricated wood, manufactures derived from pulp, metal sheets, shapes, and wire, and a considerable variety of more-manufactured goods.

In petrochemicals, Canada is already building a number of world-scale plants to supply basic materials for both the export

Table 1

U.S. IMPORTS OF LOW DUTY PRODUCTS FROM CANADA IN 1973

Product groups	Number of tariff items	Value (\$ millions)			
		Canada	World total	Percent from Canada	Average tariff (%)
Main manufactured items					
A	37	379	4,761	8.0	4.1
B	77	602	1,587	37.9	4.2
C	7	808	1,605	50.3	4.3
Subtotal A-C	121	1,788	7,954	22.5	4.2
Other manufactured and processed goods					
D	965	509	9,793	5.2	3.8
Subtotal A-D	1,086	2,297	17,747	13.2	3.9
Crude products					
E Oil	2	1,216	6,668	18.2	2.5
F Other	25	153	203	75.5	2.8
TOTAL A-F	1,113	3,667	24,618	14.9	3.8

Source: Based on official U.S. data.

Notes: Totals may not add up due to rounding. Groups A to C duties range from 2.0 to 5.0 percent, ad valorem or equivalent, and imports under individual items exceeded \$1 million.

Group A includes manufactured goods where the Canadian share of imports under individual tariffs is less than 20 percent.

Group B includes goods where the Canadian share exceeded 20 percent, and the range of import values is \$1.1 to \$50.0 million.

Group C includes goods where the Canadian share exceeded 20 percent, and import values exceed \$50 million per tariff item.

and domestic markets. The basic petrochemical industry is one where overall economies of scale are crucial. This contrasts in one respect with the bulk of Canadian industry, where scale of total plant is less important than plant specialization with long production runs of a few items for a large market. Given the emergent supply of competitively priced basic petrochemical products, Canada's interest lies in further promoting the conditions for successful operation of these industries in a large market area — and for economic participation by Canadian-based "downstream" processing and manufacturing industries in market growth. At present, these considerations relate mainly to the North American market. The United States has said it is prepared to entertain proposals for reductions of barriers to entry of petrochemicals and manufactured derivatives.

Freer trade could mean new opportunities for new technology. Many of the investment opportunities created by trade liberalization during the 1980s could, in turn, create springboards for further new investments in the late 1980s and in the 1990s. Participation in one internationally competitive industry is an excellent springboard for the application of new technology to create other internationally competitive industries. Existing participation provides an experienced pool of scientists, engineers, and managers. For instance, without a petrochemical industry based on gas or oil derivatives, Canada's chances of successfully operating a similar industry based on coal would be greatly reduced. In the same way, without a viable metal-processing sector, Canada would be less likely to achieve quantum jumps in new technology applications such as electroforming and ionic spraying — which could revolutionize product design and output costs. Freer trade could enable our large forest industries to apply such new technologies as synthetic lumber.

Clearly, the outcome of the current GATT trade negotiations will be worth analysis by industrial investors interested in taking advantage of new production opportunities afforded by declining trade

barriers. Concurrently, with the accelerated rise of two-way trade flows which is inherent in trade liberalization, there will be new opportunities for investment in transport and distribution facilities.

It should be understood that the Canadian transitional objective is an orderly reorganization rather than the elimination of import-competing industries at the lower end of the scale of comparative advantage in Canada. Specialized parts of such industries would probably continue to produce on a viable commercial basis after a period of restructuring. Public measures to facilitate this change and to encourage the creation of alternative occupations for the resources released by declining sectors would probably play an important role. Thus, even in declining industries there would be scope for selective investments based on ingenuity and specialization.

Concluding perspectives

Concerns have been expressed both in Canada and abroad that the decline of competitiveness of Canadian industry since the early 1970s has eroded the attractions of Canada as a base for industrial investments. These concerns are probably justified by the evidence of Canadian economic performance over a period of perhaps five years. But it is also clear that the negative reaction (partly a reaction to the optimistic euphoria of 1973-74) has gone too far. For there is evidence of solid underlying strength and resilience in the Canadian economy.

In 1976, for example, the Economic Council of Canada published an index of Canada's competitive international trade performance. When this is extended to the present, it shows that Canadian competitiveness has improved considerably since 1974, although it has not yet regained its 1971 level. From an index level of 100 in 1971, there was a decline to about 81 in 1974, then a steady climb back to about 90 at the present time.

It is encouraging that the trend of this index in recent years has been upward; and that public policies at the federal and provincial levels are showing renewed focus and priority on an acceleration

of Canada's productivity growth. Another encouraging indication is the fact that productivity levels in Canadian manufacturing have been rising relative to those in U.S. manufacturing. In aggregate terms, Canadian manufacturing productivity was about 55% of the U.S. level in 1950, about 66% in 1967, and around 78% in 1976. Moreover, Canadian productivity levels in many of the durable goods industries are very close to those of their U.S. counterparts. A good part of this improvement is due to the large increase in Canadian trade and specialization under the automotive trade agreement of 1965 with the United States.

Most of the decline in Canadian competitiveness was due to the rapid increases in compensation and unit costs in Canada compared with the United States, rather than to productivity weaknesses. Hearteningly, it appears that this counter-productive binge is ending. Unit labour costs of production appear to have risen no faster in Canada than in the United States during 1977. Moreover, the Canadian dollar has depreciated by about 13% relative to the U.S. dollar since 1976. This decline will confer at least a short-term advantage on Canadian suppliers and provide a breathing space in which to consolidate the effects of underlying, positive, long-term trends.

Future investors who consider Canada will, of course, make their own assessments and decisions. What is suggested here is that these decisions would best be based on a long-term view of Canada's prospects, including the new opportunities likely to arise from the trade negotiations and related policies. The prospects are that massive investments will continue to be made in Canada in the future — and that there will be a large shift from social capital spending to business capital spending. Among the positive aspects of the Canadian situation is the recent improvement in domestic supply prospects for energy — natural gas, crude and synthetic petroleum, and uranium. Together with well-known substantial coal reserves, these resources will provide scope for very large investments — and with beneficial impacts on a great many other Canadian economic activities.

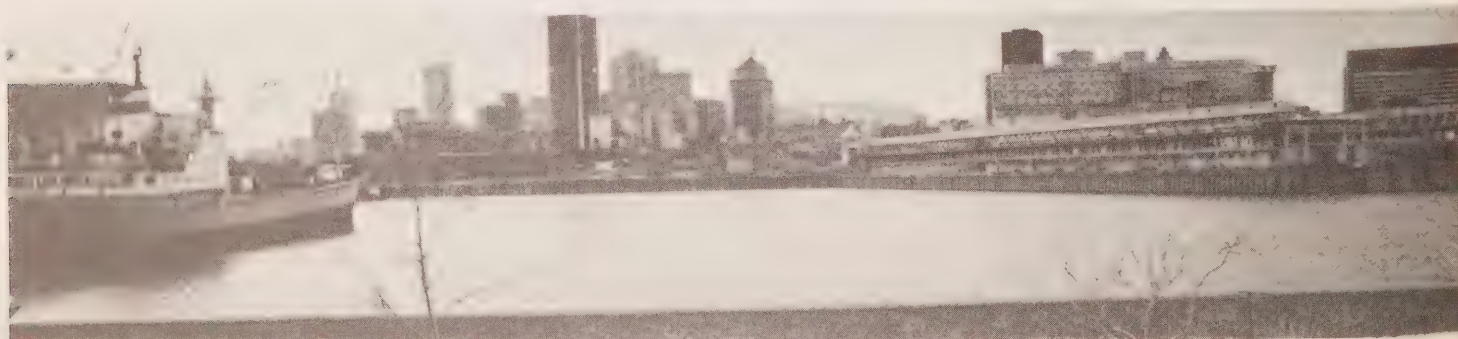


Photo: Central Mortgage and Housing Corporation

A businessman's comments on FIRA

by Guy P. French

In a recent address, I made two comments about FIRA which, to my surprise, received a fair amount of publicity.

The first remark was that I had no objection to Canada's establishing an agency to review prospective foreign investments. I am not sure why this viewpoint should be considered remarkable by some people. Perhaps they are surprised to hear it emanate from a senior business executive of a foreign-controlled Canadian company, whose U.S. parent company has itself twice experienced the FIRA review process. However, as a Canadian, I believe that the Canadian public should have some means by which to evaluate the potential benefits to our country of at least some of the specific investments that non-residents propose to make here. Such a view is certainly not intended, on my part, to suggest any bias whatever against foreign investment as such. Canada, no less than the vast majority of other countries, needs large inflows of capital and superior technology in order to progress. But it cannot be assumed that every single foreign venture into Canada will produce attractive benefits. For example, a foreign acquisition of an existing Canadian firm (whether domestically or foreign owned) for no other reason than to eliminate a competitor or curtail its competitive vigour is obviously an undesirable intervention — albeit an extreme example of one. Also, for example, the foreign acquisition of a large or long-established Canadian company — particularly if the latter is one of the few Canadian presences in its industry — is surely something that ought to be reviewed from the standpoint of Canada's national interest.

My second remark was to the effect that FIRA's operation and decision-making process appear generally to have been effective: that is to say, efficient, fair and reasonable. One hears occasionally of lengthy review and negotiation periods, but not seemingly as the result of perverse attitudes within the Agency. One sees and hears more criticism, especially in the media, that the Agency has been too speedy or liberal with its approvals, than complaints about slow procedures or negative decisions. On the whole, the Agency appears to be carrying out its mandate quite well — perhaps surprisingly well.

A third comment I made was not widely publicized. I suggested that a clearcut national industrial strategy, if developed, would surely assist FIRA (and other public agencies and departments) in decision-making. As a businessman, I am very aware of the value of "strategies". Strategies differ from policies and principles (which we seem not to lack) in that they lay down not only what we want to achieve, but the basic means by which we will achieve it. A

strategy is long term by nature. Typically, it is highly contentious and difficult to arrive at. Yet it must be achieved. Among the strategy questions that need answering in Canada are: What industries are we going to bank on most heavily in our best long-term interests and why? What are our regional objectives and why? How do we intend to achieve these industrial and regional objectives? Only when questions such as these are answered can we hope, for example, to rationalize some of our industrial situations in which rationalization on a national basis seems in conflict with some notions of supporting the regional economies.

Businessmen today have two significant concerns in regard to government, and the two are inter-related. One is the plethora of government bureaus impacting on business. This problem is acutely felt by established businesses. Concern is reflected in complaints about government spending, about the increasing cost of responding to government demands, and so on. Emotionally, if not rationally, FIRA's relatively recent arrival on the scene has evoked some feelings of this sort.

The other concern is closely related to the strategy vacuum, as well as to the government intervention issue. It is particularly worrisome to the prospective investor, domestic or foreign. It is simply the apparent frequency of change in the rules of the game for business. The recent resort to wage and profit controls is a striking case in point. Another is the repeated introduction of proposed "competition" legislation which, on again and off again, threatens to change and regulate basic competitive market structures. In this respect too, the arrival of FIRA, insofar as it was a change, caused some businessmen to re-adjust their thinking and planning.

Business will never be free of psychological factors, and it must be recognized that FIRA's psychological effect on business, at least on international business, must be at least somewhat negative. We can never know the number of potential investments that may have been turned off by the new requirements of the review procedure. When taken together with changing regulations and the creation of new regulatory bodies in the past decade, it would be difficult to imagine that FIRA's existence would be regarded positively by the investment community.

All of this is simply to observe that those responsible for foreign investment review in Canada must be sensitive to the real life environment in which they operate.

And in my view, all things considered, the establishment of the Foreign Investment Review Agency was soundly based, and the personnel and procedures are generally reasonable.

Capital investment projects in Canada

IV. TRANSPORTATION, STORAGE AND COMMERCIAL DEVELOPMENTS

This list shows major capital spending projects now in progress or proposed. Three other parts (published in previous issues of *Foreign Investment Review*) covered minerals, forest products, oil, gas, electric power and manufacturing. Part IV covers investment in transportation and storage sectors, as well as new commercial developments, and is limited to projects costing over \$3 million. Information on projects has been obtained mainly from press reports, verified, where necessary, by the companies concerned.

This report was prepared for *Foreign Investment Review* by L. E. Dewis, Analyst with the Capital Expenditures Group, Economic Analysis Branch, Department of Industry, Trade and Commerce.

In the area of **transportation** the federal government will be providing \$70 million in 1978-79 to the two major Canadian railways for the rehabilitation of prairie rail branch lines. The work will involve bank widening, brush clearing operations, ballasting and tie renewals on several branch lines between the Prairie Provinces and British Columbia ports, in addition to the annual renewal of rail and ties which the railways undertake in the Prairies and other regions of the country.

Grain elevators are being built in Vancouver, British Columbia and Windsor, Ontario. A new grain elevator, renovations to two existing elevators, and a new two-berth container terminal are planned for Montreal, Quebec. A new container pier is to be built at Halifax, Nova Scotia, with a 50-acre storage area; the terminal is expected to be completed by 1980. The federal government has approved an expenditure of \$100 million to construct new repair facilities in the Canadian Armed Forces Dockyard in Halifax.

In the **commercial** sector, during the next four years developers are expected to build about 20 million square feet of shopping centre space. Most of the projects included in this figure are either under construction and will open in the next two years, or have received municipal approvals and firm commitments.

Company and project description	Completion date	Cost (\$ millions)	Location
British Columbia			
Shopping centres			
Abacus Cities Ltd. New development	1983	50-75	New Westminster
Abacus Cities Ltd. New development	1978	9	Terrace
B.C. Central Credit Union Commercial-residential and office complex	1980	20	Vancouver
Dominion Construction Co. Ltd. New development, Phase 1	1979	9	Langley
Dominion Construction Co. Ltd. New development	1980	12-14	Kamloops
Ira Young & Associates New development	1979	50	Coquitlam
Parkwell Shopping Centre Ltd. Expansion	1978	20	Vancouver
Woodgrove Holdings Ltd. New development	1980	17	Nanaimo
Railways			
Canadian Pacific Ltd. Double tracking	1980	45	Mountains
Sea ports			
British Columbia Development Corp. Deepsea port	1979-80	10	Nanaimo
Elevators			
The Pioneer Grain Terminal Ltd. Grain elevator	1979	80	W. Vancouver
Saskatchewan Wheat Pool Grain elevator	1979	5	W. Vancouver

Company and project description	Completion date	Cost (\$ millions)	Location
Alberta			
Shopping centres			
Abacus Cities Ltd. & Hudson Bay Co. New development	1979	14	St. Alberts
Allasco Development Ltd. New development	1979	15	Fort McMurray
Canada Square Corp., Gulf Oil Canada Limited New development	1980	80	Calgary
Cascade Development Corporation Ltd. New development	1979	30	Calgary
Philby Investment Ltd. New development	1980	50	Edmonton
Westfield Development Corp. Ltd. New development	1979	20	Edmonton
Hotels			
Altacan-Oland Constructors Ltd. New hotel	1979	5	Calgary
Banff Park Lodge Ltd. New hotel	1979	3	Banff
Canadian Pacific Hotels Ltd. 300 Room hotel	1978	10	Calgary
Wayside Inns of Alberta Ltd. New hotel	1979	4	Lloydminster
Railways			
Canadian National Railway Co. Improved branch lines	1979	100	Prairies
Manitoba and Saskatchewan			
Shopping centres			
The Cadillac-Fairview Corp. Ltd. New development	1979	14	Moose Jaw, Sask.
T. Eaton Co. Ltd., E. P. Holdings Ltd. and Bredero Group of the Netherlands Retail development	1980	100	Winnipeg, Man.
Lakeview Properties Ltd. Commercial development	1979	22	Winnipeg, Man.
Trizec Corp. Ltd. Commercial and office development	1981	80	St. Vital, Man.
Trizec Corp. Ltd. New development	1979	14.7	St. Vital, Man.
Ontario			
Commercial properties			
Bramalea Ltd. Downtown core	1983	100	Brampton
Campeau Corporation Expansion	1978	15	Oshawa
Campeau Corporation Retail mall	N.A.	25	Ottawa
Canlea Ltd. and Restland Corp. Commercial and office	1979	30	Toronto
Fabasco Limited Retail mall	1979	30	Toronto
Fidnam Canada Ltd. Commercial and residential	1980	100	Toronto

Company and project description	Completion date	Cost (\$ millions)	Location
S. B. McLaughlin Associates Ltd. Commercial and office development	1979	9	Mississauga
Montroc Investments Inc. Expansion	1979	4.5	Hawkesbury
Windlass Holdings Ltd. and Friedel Construction Ltd. Commercial and residential	1978	40	Toronto
The Cadillac-Fairview Corp. Ltd. Eaton Centre	1979	65	Toronto
Northgate Square Ltd.	1979	21	North Bay
Airports			
Transport Canada Expansion	1980	100	Hamilton
Transport Canada Expansion	1978	25	Malton
Railways			
Canadian National Railway Co. New terminal	1979	20	Brampton
Elevators			
United Co-Operatives of Ontario Deep water grain elevator	1978	21	Windsor
Quebec			
Shopping centres			
Caisses Populaires Desjardins	1978	3	Longueuil
Pierre Tardif Inc. Commercial and office development	1979	10	Quebec City
Sea ports			
National Harbours Board Port improvements	1983	60	Montreal
National Harbours Board Port improvements	1983	42	Quebec City
Railways			
Canadian National Railway Co. Improvements and expansion	1978	276	Quebec City
New Brunswick			
Commercial properties			
Assumption Mutual Life Insurance Co. Expansion	1979	17	Moncton
Burnac Leaseholds Limited New development	1979	4.5	Chatham-Newcastle
Douglastown Shopping Mall	1978	6.5	Douglastown
L. Rocca Construction Co. Ltd. Expansion	1978	8	Saint John
L. Rocca Construction Co. Ltd. Commercial development	1979	10	Saint John
Market Square Development	1985	35	Saint John
Sea ports			
Saint John Drydock Co. Ltd. Drydock extension	1979	60	Saint John
Prince Edward Island			
Shopping centres			
The Charlottetown Area Development Corporation New development	1980	25	Charlottetown
The Dale Corporation Expansion	1979	3.6	Charlottetown

Company and project description	Completion date	Cost (\$ millions)	Location
Airports			
Transport Canada Re-development	1978	21.5	Charlottetown
Nova Scotia			
Shopping centres			
Home Hardware Stores Ltd. New distribution centre	1979	13	Debert
Nova Scotia Housing Commission New development	1979	11	Cole Harbour
L. Rocca Construction Co. Ltd. New development	1978	10	Bedford
Trizec Equities Ltd. Expansion	1978	3.6	Halifax
Willowgate Development Corporation Ltd. New development	1979	4	Halifax
Sea ports			
National Harbours Board Expansion	1980-81	35.6	Halifax
National Harbours Board Expansion, dockyard	1989	100	Halifax
Hotels			
Durham Leaseholds Ltd. New development	1979	12	Halifax
Newfoundland			
Shopping centres			
Burnac Leaseholds Limited New development	1979	4.5	Carbonear
Leaseholds Construction Corp. New development	1979	6	Labrador
Les Galeries du St-Laurent New development	1979	25	St. John's
Wabush Enterprises Limited New development	1979	19	St. John's



Place La Chaudière, Hull, Quebec. Photo: Campeau Corporation

Incentives to industry

The following is a regularly updated list of the major incentives to industry offered by the federal and provincial governments and available to both Canadian and non-Canadian investors. To qualify, companies must be incorporated in Canada.

FEDERAL GOVERNMENT INCENTIVES

Note: a number of programs which are cost-shared and jointly administered by the federal and provincial governments are listed only under **Provincial Government Incentives**.

Department of Industry, Trade and Commerce

Enterprise Development Program (EDP)

The program assists eligible manufacturing and processing firms to become more viable and internationally competitive through grants and loans. The grants are to help firms to develop proposals for project assistance, study market feasibility or productivity improvement, procure industrial design services, and develop or introduce new technology. Loans or loan guarantees assist restructuring or rationalization. Further grants or loans are also available to help firms to meet special problems or to further specific government objectives. **Contact:** Enterprise Development Board, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

Machinery Program

This program provides for remission of import duty on types of machinery not manufactured in Canada, when the importation of such machinery is vital to an enterprise. **Contact:** Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

Agricultural and Food Products Market Development Program (AGMAP)

Financial assistance to develop domestic and export markets for agriculture and food products. **Contact:** Program Unit, Agriculture Fisheries and Food Products Division, Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

Other Programs

Financial assistance programs are also available for shipbuilding, defence production, fashion design, grains and oilseeds marketing and for export market development. **Contact:** Department of Industry, Trade and Commerce, 240 Sparks St., Ottawa, Ontario, Canada K1A 0H5.

National Research Council

Industrial Research Assistance Program (IRAP)

Shares cost of selected research projects. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Pilot Industry/Laboratory Program (PILP)

Provides shared-cost research between NRC laboratories and industrial firms. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Department of Regional Economic Expansion (DREE)

Regional Development Incentives Program (RDIP)

The program provides grants and loan guarantees to foreign and Canadian firms undertaking ventures in designated regions in all provinces under the Regional Development Incentives Act. Incentives are provided principally to manufacturing or processing operations and loan guarantees are also available to certain new service facilities. The Montreal Special Area designated under the DREE Act is eligible for grants in certain manufacturing or processing sectors. **Contact:** Industrial Incentives Branch, Department of Regional Economic Expansion, Sir Guy Carleton Building, 161 Laurier Avenue West, Ottawa, Ontario, Canada K1A 0M4.

Federal Business Development Bank (FBDB)

Provides financial assistance to business, particularly small business, in the form of loans, loan guarantees, equity financing or leasing. Management services are also available to small businesses. **Contact:** Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.

Department of Finance

Guarantees loans up to \$50,000 from approved lenders to proposed or existing businesses whose actual (or estimated) gross revenue is less than \$1 million. **Contact:** Guaranteed Loans Administration, Department of Finance, Place Bell Canada, 160 Elgin St., Ottawa, Ontario, Canada K1A 0G5.

PROVINCIAL GOVERNMENT INCENTIVES

ALBERTA

Alberta Opportunity Company

Provides financing for Alberta manufacturing and service businesses through direct loans or guarantees of loans for fixed assets or working capital when funding is not available from conventional lending institutions.

Contact: *Alberta Opportunity Company, Box 1860, Ponoka, Alberta, Canada T0C 2H0.*

Canada-Alberta Subsidiary Agreement on Nutritive Processing Assistance

The maximum grant under this program is 35 per cent of the total capital required to build or expand a facility. The grant is restricted to nutritive processing operations in which raw or semi-processed products are physically or chemically altered, processed, or refined or made more marketable as nutritional products for humans, animals, or plants. The grants are available for operations anywhere in Alberta except Edmonton and Calgary. **Contact:** *Executive Director, DREE Program, Agriculture Building, 11th floor, 9718 — 107th St., Edmonton, Alberta, Canada T5K 2C8.*

BRITISH COLUMBIA

British Columbia Development Corporation

The corporation provides financing in the form of term loans, loan guarantees, performance bonds, deficiency guarantees, leasing of buildings and machinery, and in special cases, equity. While there is no limit on the amount of funds the corporation may provide, in large scale projects it prefers to provide assistance in conjunction with other financial institutions. BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the land development division. BCDC acts as project manager of large capital projects in British Columbia. **Contact:** *British Columbia Development Corporation, 272 Granville Square, 200 Granville St., Vancouver, British Columbia, Canada V6C 1S4.*

Ministry of Economic Development

The business development program provides assistance in marketing British Columbia-manufactured products outside

the province by providing financial support to businesses to participate in trade shows and trade missions outside Canada. It also provides a market development assistance program, a technical assistance program, a small businesses assistance program and a business information service on the availability and source of various forms of financial and other assistance to business. The new business service provides counselling and information about government regulations. **Contact:** *Business and Industrial Development Branch, Ministry of Economic Development, Box 10111, 700 West Georgia St., Vancouver, British Columbia, Canada V7Y 1C6.*

MANITOBA

Design Assistance Program

Cost-sharing of consulting and advisory services for market research, design and redesign of products and packages. **Contact:** *Manitoba Design Institute, 155 Carlton St., 5th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Export Incentive Program

Cost-sharing of promotion for new export markets. **Contact:** *Manitrade, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Research Council

The Research and Development Assistance Program provides shared-cost assistance for research and development of new or improved products or processes. The council's Canadian Food Product Development Centre provides advice and in-plant assistance including laboratory work for food and feed industries. **Contact:** *Manitoba Research Council, 155 Carlton St., 6th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Department of Industry and Commerce

The Feasibility Studies Incentive Program assists manufacturing and processing industries with shared-cost feasibility studies on establishing or expanding manufacturing. The DREE Application Incentives Program provides shared-cost assistance to employ outside consultants in the preparation of applications to the federal government's Department of Regional Economic Expansion programs for the establishment or expansion of manufacturing facilities. The Productivity Improvement Program provides shared-cost assistance to identify problems and obstacles to growth. The Manpower

Development Assistance Program provides cost-sharing of manpower development programs. **Contact:** *Department of Industry and Commerce, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.*

NEW BRUNSWICK

New Brunswick Industrial Development Board

Provides financial assistance to manufacturers or processors, normally in the form of a loan guarantee or direct loan. Administers a joint federal-provincial interest-free forgivable loan program oriented to small businesses. **Contact:** *Department of Commerce and Development, P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

New Brunswick Provincial Holdings Limited

Will take an equity position in manufacturing companies locating in New Brunswick. **Contact:** *N.B. Provincial Holdings Ltd., P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

Research and Productivity Council

Provides technical support services for industry in New Brunswick, including engineering and problem solving, industrial research and development, and management consulting, on a cost-recovery basis. **Contact:** *N.B. Research and Productivity Council, College Hill Road, Fredericton, New Brunswick, Canada E3B 5C8.*

NEWFOUNDLAND

Newfoundland and Labrador Development Corporation

This joint federal-provincial corporation provides equity and loan financing up to \$1 million for establishing or expanding small and medium-sized businesses. **Contact:** *Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.*

Department of Industrial Development

Approved financing of new or expanding business ventures in amounts of more than \$1 million. **Contact:** *Department of Industrial Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7.*

NOVA SCOTIA

Industrial Estates Ltd.

Long-term loans on 20-year first mortgages on 100% of the cost of new land and buildings of secondary manufacturers and up to 60% financing of new machinery with 10 years to repay. Minimum loan financing available under this program is \$150,000. **Contact:** *Industrial Estates Ltd, 5151 George St., Suite 700, Halifax, Nova Scotia, Canada B3J 1M5.* Also

Industrial Development Manager, Industrial Estates Limited, Niederkasseler Kirchweg 95, 4000 Düsseldorf 11, Germany

Industrial Loan Act, Industrial Development Act

Loans for new or expanding resource-based industries and tourist facilities at current interest rates. **Contact:** *Nova Scotia Resources Development Board, Bank of Montreal Towers, P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

Department of Development

The department offers a number of assistance programs to business and industry. These include: The Marketing Assistance Program, the Management Development Program, the Product Design and Development Program, the Rural Industry Program, the Opportunity Identification Program and the Industrial Malls Program. The Strait of Canso Development Office is a joint federal-provincial agency funded by the Department of Regional Economic Expansion and the Nova Scotia Department of Development. The deepwater port is particularly appropriate for the location of heavy industry, particularly as related to the petrochemical industry and "bulk supership" shipments. **Contact:** *Nova Scotia Department of Development, 5151 George St., P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.*

ONTARIO

Ontario Development Corporation

Programs include: industrial mortgages and leasebacks, export support loans, venture capital loans, pollution control equipment loans, loans to small businesses, tourist industry loans, and incentive loans to encourage industries to locate or expand in slow-growth areas of Ontario. **Contact:** *Ontario Development Corporation, Mowat Block, 3rd floor, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Ontario Industrial Training Program

Assistance for training programs to companies locating in areas where such

programs will help improve employment opportunities. **Contact:** *Ministry of Colleges and Universities, Industrial Training Branch, Mowat Block, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.*

Retail sales tax exemption for production machinery and equipment

A retail sales tax exemption is granted to a manufacturer or producer who purchases machinery and equipment which alters the goods in process as well as a wide variety of mining, logging, waste removal and pollution control equipment and other types of machinery. **Contact:** *Ministry of Revenue, Retail Sales Tax Branch, Queen's Park, Toronto, Ontario, Canada M7A 1X9.*

PRINCE EDWARD ISLAND

Industrial Enterprises Incorporated

Provides assistance for capital expenditures in the form of first mortgage loans on real estate and/or equipment. **Contact:** *Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0.*

P.E.I. Department of Industry and Commerce

The Industrial Assistance Program provides assistance in the form of forgivable performance loans to manufacturing and processing businesses. Where the maximum capital expenditure is \$25,000, eligible businesses may receive a maximum forgivable performance loan of \$12,500 or 25% of the total capital cost and up to \$2,000 for each new job created. The Service Sector Assistance Program provides assistance to primary resource industries and/or secondary manufacturers and processors to purchase new, used, or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. For a maximum capital expenditure of \$60,000, the amount of forgivable performance loan would be 25% of the approved capital costs to a maximum of \$30,000 and up to \$2,000 for each new full-time job created. Financing for these programs is on a joint federal-provincial basis. **Contact:** *Department of Industry and Commerce, P.O. Box 2000, 180 Kent St., Charlottetown, Prince Edward Island, Canada C1A 7N8.*

QUEBEC

Quebec Industrial Development Corporation (QIDC)

QIDC offers financial assistance to manufacturing projects in compliance with the industrial policies of the Quebec Ministry of Industry and Commerce.

Long-term financing of capital costs, reduced rates of interest and shared equity in manufacturing projects, are available. These forms of financial assistance are offered to most sectors of industry in Quebec by QIDC together with direct government grants offered by DREE's specially-designated zone in Montreal. **Contact:** *Quebec Industrial Development Corporation, 1126, Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.*

Quebec Ministry of Industry and Commerce

An industrial financing fund to encourage the development of small plants through fiscal abatement at the accrued rate of 25% annually and a tax rebate to encourage regional industrial development for the general industrial sector is available in addition to QIDC development assistance programs. (See listing above.) The costs of exporting Quebec-manufactured products are supported by interim financing. The ministry also contributes financially to the organization of trade missions, feasibility studies and market surveys, promotes manufacturing under foreign licenses, conducts regional labour surveys, and studies problems related to industrial productivity, at the request of potential investors. The ministry maintains permanent economic delegations in New York, Boston, Chicago, Dallas, Los Angeles, Toronto, Brussels, Düsseldorf, London, Milan, Paris, and Tokyo. **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned societies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

SASKATCHEWAN

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial land for lease or sale. **Contact:** *Saskatchewan Economic Development Corporation, 1106 Winnipeg St., Regina, Saskatchewan, Canada S4R 6N9.*

Book list

International Business and Investment

The Control of Foreign Direct Investment in a Federation: Canadian and Australian Experience. Research Monograph No. 3

Stevenson, Garth

Sydney: University of Sydney, Transnational Corporations Research Project, 1976

Examines the political responses to foreign direct investment at provincial, state and federal levels in the two countries and notes the effect of greater regional diversity on Canadian policy.

Multinational Manufacturing Enterprises and Imperfect Competition

Parry, J. G.

Kensington, N.S.W.: Centre for Applied Economics Research, University of New South Wales, Australia, 1977

A study of the effects in the host country of international direct investment under conditions of imperfect competition.

Continental Corporate Power: Economic Elite Linkages Between Canada and the United States

Clement, Wallace

Toronto: McClelland and Stewart Limited, 1977

A sociological study of a continental corporate elite — tabulates American and Canadian corporations and those who control them.

The European Multinationals: A Renewed Challenge to American and British Big Business

Franko, Lawrence G.

Stamford, Conn.: Greylock Publishers, 1976

Describes the origins, growth and present organizations of the largest continental European multinationals. Part of the Harvard Business School project on multinational enterprise.

The Japanese are Coming: A Multinational Interaction of Firms and Politics

Tsurumi, Yoshi

Cambridge, Mass.: Ballinger, 1977

As part of the Harvard Business School project on multinational enterprise, this book examines the dimensions and characteristics of the recent surge in Japanese overseas private investment, including the migration of industries to neighbouring "export platforms".

The Ethics of Corporate Conduct

Walton, Clarence (editor)

Englewood Cliffs, N.J.: Prentice-Hall, Inc. for The American Assembly, Columbia University, 1977

Eight essays, prepared for the fifty-second American assembly in 1977 by eminent American authors, discuss business conduct and the moral environment with separate reference to ethical issues faced by the corporation lawyer, accountant and public relations manager.

Transnational Control of Multinationals

Hellman, Rainer

New York: Praeger Publications, 1977

This study of the efforts being made to exercise controls over multinationals examines both public controls — at state, regional, inter-regional and international levels — and non-governmental controls by workers and consumers, concluding that a system of regional groupings of states may offer the best conditions for transnational control.

International Experience in Managing Inflation

Greene, James

New York: The Conference Board, Inc., 1977. Report No. 729

Results of a study to determine how managers of major national companies assess the threat of inflation and what steps they have found effective in counteracting the threat. Based on a survey of over 100 companies, the study focuses on Europe, United States, Australia, Philippines, Mexico, Brazil and Argentina.

The International Taxation of Multinational Enterprises

Adams, J. D. R., and Whalley, J.

Westport, Conn.: Greenwood Press, 1977

An outline of the basic features of the tax treatment of multinational enterprises in Europe and the United States, and an evaluation of both present and alternative tax arrangements.

Canada: Business, Investment, Government Policy

Canadian Securities Regulation

Johnston, David L.

Toronto: Butterworth & Co. (Canada) Ltd., 1977

A broad description and analysis of the principal features of securities regulation in Canada, including regulation of dealers, distribution, insider trading and take-over bids.

Regional Economic Policy: The Canadian Experience

Lithwick, N.H.

Scarborough, Ont.: McGraw-Hill Ryerson, 1978

This book of readings attempts to establish a theoretical rationale for regional policy, to indicate the policies that have been pursued in Canada and to assess the overall efficiency of those strategies.

Policy Review and Outlook for 1978. A Time for Realism

Maxwell, Judith, editor

Montreal: C. D. Howe Research Institute, 1978

The fifth annual policy review focuses on the impact of international developments on Canada and on regional economic disparities and current challenges to Canadian federalism.

Industrial Assistance Programs in Canada: Interpretation, Law and Regulations

Toronto: CCH Canadian, 1977

New edition of a practical guide to industrial assistance programs that are available to Canadian industry generally, to specific industries or for specific purposes.

The Role and Function of Government Laboratories and The Transfer of Technology to the Manufacturing Sector

Cordell, Arthur J. and James Gilmour

Ottawa: Science Council of Canada 1976

Deals with transfer of technology from federal laboratories to the manufacturing sector in Canada, and suggests that the industrial attitude to government research institutions may often lead to a failure to exploit research.

What is Happening to Canada

Gordon, Walter L.

Toronto: McClelland and Stewart Ltd., 1978

Based on recent lectures by the author, this short book examines current economic and political issues in Canada, including the status of Quebec, foreign control of Canadian industry, and energy problems.

Statistical tables

QUARTERLY FIGURES

TABLE 1 — SUMMARY

REVIEWABLE ACQUISITION CASES

	1977				1978
	first quarter	second quarter	third quarter	fourth quarter	first quarter
Total	41	60	80	80	79
Industry					
Primary	3	2	11	4	5
Manufacturing	16	27	29	36	33
Construction and services	22	31	40	40	41
Country of control					
United States	25	39	55	52	62
United Kingdom	10	10	9	11	8
Other Europe	6	5	16	14	7
All other	—	6	—	3	2

REVIEWABLE NEW BUSINESS CASES

	1977				1978
	first quarter	second quarter	third quarter	fourth quarter	first quarter
Total	62	93	86	87	67
Industry					
Primary	3	6	8	5	8
Manufacturing	17	24	29	24	25
Construction and services	42	63	49	58	34
Country of control					
United States	35	48	50	51	43
United Kingdom	5	11	6	8	4
Other Europe	15	24	23	23	16
All other	7	10	7	5	4

ANNUAL FIGURES

TABLE 2 — OUTCOME OR STATUS

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977 [*]
Reviewable new cases	102	166	171	261
Carryover from previous period	—	52	54	65
Total of above	102	218	225	326
Total resolved	50	164	160	253
Allowed	33	116	124	231
Disallowed	8	21	19	12
Withdrawn	9	27	17	10
Carried over to next period	52	54	65	73
Allowed cases as percent of resolved	66%	71%	78%	91%

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977 [*]
Reviewable new cases	6	196	328
Carryover from previous period	—	6	58
Total of above	6	202	386
Total resolved	—	144	334
Allowed	—	115	297
Disallowed	—	9	12
Withdrawn	—	20	25
Carried over to next period	6	58	52
Allowed cases as percent of resolved	—	80%	89%

^{*} revised

† Provisions for review of acquisitions came into force April 9, 1974.

* Provisions for review of new businesses came into force October 15, 1975.

TABLE 3 — COUNTRY OF CONTROL

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Total	102	166	171	261
United States	61	116	109	171
United Kingdom	21	15	23	40
Other Europe	15	27	34	41
Belgium	1	2	1	2
Denmark	—	—	—	2
France	3	6	6	6
Germany, West	5	2	10	15
Italy	—	2	1	3
Liechtenstein	2	2	—	—
Luxembourg	—	—	3	—
Netherlands	—	5	—	4
Norway	—	1	—	—
Sweden	—	2	9	2
Switzerland	4	5	4	7
All other	5	8	5	9
Australia	2	1	—	1
Bermuda	—	2	1	—
Japan	2	2	3	3
Others	1	3	1	5
Allowed cases as percent of resolved	%	%	%	%
United States	65	77	73	91
United Kingdom	70	79	82	95
Other Europe	71	50	86	90
All other	50	30	100	80

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Total	6	196	328
United States	4	90	184
United Kingdom	—	22	30
Other Europe	1	63	85
Belgium	—	1	—
Denmark	—	5	6
Finland	—	1	1
France	—	9	17
Germany, West	—	22	26
Greece	—	—	1
Italy	1	9	10
Liechtenstein	—	2	—
Monaco	—	—	1
Netherlands	—	2	3
Norway	—	—	3
Spain	—	1	—
Sweden	—	3	9
Switzerland	—	8	8
All other	1	21	29
Australia	—	2	3
Hong Kong	—	3	3
India	—	3	1
Japan	—	4	10
Others	1	9	12
Allowed cases as percent of resolved	%	%	%
United States	—	73	88
United Kingdom	—	93	82
Other Europe	—	80	95
All other	—	91	81

* Provisions for review of new businesses came into force October 15, 1975.

TABLE 4 — INDUSTRIAL SECTOR

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Total	102	166	171	261
Primary	15	18	15	20
Agriculture	2	—	2	3
Forestry	3	1	—	1
Fishing and trapping	—	1	—	1
Mines, quarries, oil wells	10	16	13	15
Manufacturing	47	82	93	108
Food and beverage	5	10	9	15
Tobacco products	1	1	—	—
Rubber and plastic products	2	2	3	6
Leather	1	1	1	—
Textiles	2	—	2	4
Knitting mills	1	1	—	1
Clothing	—	2	1	—
Wood	5	6	2	5
Furniture and fixture	—	2	4	2
Paper and allied	1	2	1	5
Printing, publishing, and allied	—	3	1	2
Primary metal	—	3	7	2
Metal fabrication	2	6	12	10
Machinery	5	11	4	9
Transportation equipment	8	6	3	5
Electrical products	1	9	11	12
Non metallic mineral products	8	3	9	5
Petroleum and coal products	—	—	2	1
Chemical	3	11	15	10
Miscellaneous	2	3	6	14
Construction and services	40	66	63	133
Construction	2	2	2	3
Transportation, communication, utilities	6	6	9	10
Trade	18	37	38	72
Finance, insurance, real estate	10	14	8	15
Community, business, personal services	4	7	6	33

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Total	6	196	328
Primary	—	12	22
Agriculture	—	2	5
Forestry	—	—	2
Fishing and trapping	—	—	1
Mines, quarries, oil wells	—	10	14
Manufacturing	2	67	94
Food and beverage	—	3	7
Tobacco products	—	—	—
Rubber and plastic products	—	4	4
Leather	—	—	1
Textiles	—	2	4
Knitting mills	—	—	2
Clothing	—	2	3
Wood	—	2	2
Furniture and fixture	1	2	1
Paper and allied	—	1	2
Printing, publishing, and allied	—	—	—
Primary metal	—	5	6
Metal fabrication	1	10	13
Machinery	—	5	13
Transportation equipment	—	1	6
Electrical products	—	7	5
Non metallic mineral products	—	3	5
Petroleum and coal products	—	—	—
Chemical	—	6	3
Miscellaneous	—	14	17
Construction and services	4	117	212
Construction	—	4	4
Transportation, communication, utilities	1	10	5
Trade	1	68	133
Finance, insurance, real estate	1	10	16
Community, business, personal services	1	25	54

* Provisions for review of new businesses came into force October 15, 1975.

Foreign Investment Review Agency Publications *

- Foreign Investment REVIEW
 - a quarterly journal on investment conditions in Canada
- L'investisseur étranger
 - French language edition of Foreign Investment REVIEW
- Annual Report 1974/75
- Annual Report 1975/76
- Annual Report 1976/77
- Foreign Investment Review Agency Information Kit (Red) — of particular interest to lawyers and consultants
 - Contains
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 - A Guide to Filing Notice with the Foreign Investment Review Agency
 - Forms for use in giving notice pursuant to the Foreign Investment Review Act
 - The Foreign Investment Review Act (S.C. 1973, c4E)
 - The Foreign Investment Review Regulations (SOR/77-226)
 - Guidelines
 - Venture Capital
 - Real Estate
 - Corporate Reorganizations
 - Related Business
 - Oil and Gas
 - Organization Chart
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 - Forms for use in giving notice pursuant to the Foreign Investment Review Act
- FIRA Paper series
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 - No. 1: Foreign Acquisition Activity in Canada: A Long-Term Perspective by G. A. Edwards (temporarily out of print)
 - No. 2: Selected Readings in Canadian Legislation Affecting Foreign Investment in Canada (Part I)
 - Published in 1978
 - No. 3: Indicators of Foreign Control of Non-financial Industries by Province
 - No. 4: Compendium of Statistics on Foreign Investment
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Industrial Research and Development in Canada

Corporate Concentration

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News briefs

ECONOMY

New measures favoring recovery

Addressing business audiences during the summer, the Minister of Finance, Mr. Jean Chrétien, pointed to some areas where new government policy has helped create the setting for a vigorous and prolonged upsurge in the Canadian economy and urged businessmen to take early advantage of the new opportunities.

Among the measures that have been taken to stimulate growth, the Minister referred to recent corporation tax changes that were designed to increase business cash flows and to promote investment and employment. They comprise incentives to research and development, to manufacturing and processing, to energy exploration and development and to small business as well as inventory adjustment, new treatment of dividends, investment tax credit and employment tax credit. In developing incentives, said the Minister, the government is seeking to provide maximum freedom of action and decision-making for the entrepreneur.

Mr. Chrétien also noted that corporations in Canada pay less tax on average than their American counterparts. In Canada, corporation income tax as a percentage of book profits totalled 35.3% last year, whereas in the United States it was five points higher. Moreover, federal sales tax administration favours companies competing internationally, depreciation provisions are generous, the investment tax credit is applied very broadly and intercorporate dividends are treated more favourably than in the United States.

Although Canada has a level of private investment that is higher than in almost every other industrialized country, said the Minister, "Now is the time when that investment should be increasing rapidly, as a leading element in our economic recovery."

Capital spending plans

Of the nearly \$20 billion that will be invested in Canada this year by the 300 largest firms, as much as \$6.8 billion will be spent on building new plant, according to a study of capital spending intentions carried out by the **Department of Industry Trade and Commerce**. Enlargement of existing plant will take a further \$4.2 billion, while \$3 billion will be spent on plant modernization and replacement.

In the manufacturing industries the main thrust of the new investment will be on modernization and replacement of

existing plant, whereas in non-manufacturing the biggest spending will be for new installation, largely because of the needs of the energy sector.

Compared with last year, expenditure on modernization and replacement of existing plant shows the largest increase. It is up 38% for the manufacturing sector and 20.4% for non-manufacturing.

Improved competitive position of Canadian manufacturers

According to data published recently by the **U.S. Department of Labor**, the international competitive position of Canadian manufacturers has improved over the past ten years, largely as a result of the decline in the value of the Canadian dollar. Between 1967 and 1977 unit labor costs (wage costs per unit produced) expressed in U.S. dollars rose by only 84.1% in Canada, substantially less than in other industrialized countries except the United States. In Japan, for example, unit labor costs rose by 214.7% in U.S. dollars, while in W. Germany they rose by 193.4%. By contrast the United States showed an increase of only 67%.

During 1977 Canadian unit labor costs actually declined by 1.7% when converted to U.S. dollars, while those of all other countries increased. Again, the Canadian improvement was largely due to a lower exchange rate with the U.S. dollar. But it was also due in some measure to a rate of increase in output per hour that was higher than in most other countries. Canadian output per hour rose by 4% in 1977 (the highest increase since 1973) compared with a 2% increase in the United States. Only Japan (6.1%) and West Germany (4.2%) surpassed the Canadian rate and their productivity gains were more than offset by currency appreciation.

FOREIGN INVESTMENT

Proposed uranium mining legislation

The Canadian government has recently introduced legislation to ensure a high level of Canadian participation in uranium production. The *Uranium and Thorium Mining Review Bill* confirms a policy of limiting foreign ownership in the uranium industry that was first announced in 1970. The law would be administered by the Minister of Energy, Mines and Resources with the advice of the **Foreign Investment Review Agency**.

The proposed law would require a company wishing to produce uranium in Canada to apply for an extraction permit

issued by the Minister of Energy, Mines and Resources. Such an application would first be filed with the Foreign Investment Review Agency which would advise the Minister in determining whether the applicant is qualified. To be qualified, not more than 33% of a company's shares may be held by or for non-residents (with certain exceptions), three-quarters of its directors must be Canadian citizens, and the holding of working interests, royalty interests or managerial contracts by non-residents must not exceed limits to be prescribed by government regulations. However, in cases where the level of foreign equity participation exceeds 33%, but does not exceed 50%, the applicant may be deemed to be a qualified applicant if it can demonstrate that it is Canadian controlled.

These requirements do not apply to companies that were already producing uranium in Canada as of March 2, 1970, or to those that were exploring for uranium at that date and had demonstrated a commercially viable deposit by March 2, 1976. All such companies would be deemed to be qualified applicants.

An applicant that fails to meet the criteria for qualification will still be able to apply for a permit on the grounds that the proposed project would be of significant benefit to Canada, but the Act specifies that where the level of foreign ownership exceeds 50% the proposed project is deemed not to be of significant benefit. If the level of foreign ownership does not exceed 50%, and the Minister concludes that the project is of significant benefit then the Governor-in-Council may authorize that an extraction permit be issued.

Extraction permits may be for a period of up to 10 years in the first instance and may be renewed, subject to the same requirement, for up to 5 years.

The proposed legislation, which applies only to uranium and thorium extraction, would not affect uranium exploration by foreigners.

INVESTMENT

The capital market

According to a survey carried out by the brokerage firm, **Wood Gundy Limited**, total debt financing for the first five months of this year was \$8.6 billion, compared with \$8.3 billion for the same period last year. The most active participant was the federal government, which increased sharply its borrowing to \$3.6 billion. The provincial governments, meanwhile, have borrowed

\$2.8 billion, about the same as in the first five months of last year. Corporate borrowing was \$1.7 billion, a reduction of a full \$1 billion from the same time period of 1977.

New offerings of common shares, up until the end of May, 1978, amounted to \$100 million, a slight increase over the 1977 figure. However, new offerings of preferred shares declined substantially from \$960 million for the first five months of 1977 to \$720 million for the first five months of 1978.

According to Mr. C. E. Medland, president of Wood Gundy Limited, capital requirements in 1979 will be similar to those being experienced this year. There will be continued substantial capital needs by the federal government but only light capital needs by the private sector. However, there should be an increase in the offering of both common and preferred shares by corporations. He added that capital spending will not pick up sharply until 1980, when construction begins on the gas pipeline from Alaska and several other large energy projects.

BUSINESS

Aid program to small businesses

Mr. Tony Abbott, Minister for Small Business, recently announced a series of federal government measures designed to improve the environment for small businesses. One of the most significant steps is a reduction in the tax burden placed upon small businesses. For example, the 11,000 manufacturers in Canada with sales of less than \$50,000 annually will now be exempt from federal sales tax. Also, the frequency of filing federal sales and excise tax returns has been reduced, lowering administrative costs for approximately one-half of Canada's small business manufacturers. Other changes include a tax free transfer of small business holdings between generations of a family and the deduction of capital losses against income from any source, rather than only against capital gains.

Mr. Abbott also announced several other incentives. In certain circumstances, the federal government will now pay 50% of the first year's wages of a recent university or college graduate hired by a small business. In the increasingly important area of research and development, small business will now have better access to government and industrial research centres. The federal government is also able to encourage small businesses through its purchasing of supplies and services. Small businesses will be obtaining more government contracts and large suppliers will be encouraged to sub-contract out to small firms.

In addition, Mr. Abbott made public a discussion paper on equity financing for small business in which it is recommended that a small business investment company mechanism be established. The role of these investment companies, licensed by the government, would be to provide equity and equity-related financing to small businesses. They would be supported by the government through, for example, tax incentives and guaranteed leverage. For instance, debt securities could be guaranteed up to 90% by the federal government. According to the discussion paper, any comprehensive approach adopted by the government to encourage small business equity financing must both involve the private sector and recognize the need for government support.

ENERGY

Development of renewable energy

The federal government will spend \$380 million over the next five years to develop renewable energy sources. Alastair Gillespie, Minister of Energy, Mines and Resources announced recently two separate packages — one involving solar energy and the other involving forest and other waste energy — which will encourage the substitution of renewable energy sources for non-renewable ones. It is hoped that, by the year 2000, as much as 10% of Canada's energy needs will be met by renewable sources.

Four separate programs make up the solar energy package. The largest, in dollar terms, is a program which will make available \$125 million in the next five years for the preferential purchase of Canadian-made solar space and water heating equipment for new federal buildings. The second program offers 25 grants of \$10,000 to firms to prepare solar equipment design proposals. After these proposals have been assessed, up to 10 further contributions will be made of \$200,000 to \$300,000 each for further design and development. The third program offers \$350,000 in prize money to winners of national competitions to encourage more energy-efficient design. Particular emphasis will be placed on use of passive solar techniques. The fourth program will provide substantial funding for solar research, development and demonstrations. For example, \$114 million has been allocated for the demonstration of novel technologies or applications to be administered under cost-sharing arrangements with the provincial governments or the private sector.

The forest and other waste energy package has three major components. First, the Canadian government will make available \$143 million to the forest producers to use wood wastes as a fuel

source instead of oil or gas. The second component involves the guaranteeing of loans, worth a total of \$150 million, to assist in establishing electrical generating facilities using biomass as the energy source. The third component involves the expansion of research, development and demonstrations. Approximately \$40 million will be available to help fund research projects and demonstrations in this area.

INDUSTRIES

Industrial restructuring and the establishment of a redeployment fund

In a report on relations between Canada and the developing countries, the **Economic Council of Canada** recommended the creation of an industrial adjustment and redeployment fund, totalling some \$4 billion, and the creation of a comprehensive joint regional development strategy. These actions would permit the restructuring of those industrial sectors which are threatened by the increased importation of goods from the developing countries. This restructuring would take place in response to a progressive reduction of tariff and non-tariff barriers, based on a fixed schedule, for products in which the third world countries possess an appreciable comparative advantage — textiles, clothing, leather goods, certain segments of the electrical and electronics industries, toys, and sporting goods. The redeployment fund would be used to assist these industries in need of help.

According to the Economic Council, the transfer of certain industrial activities to low-wage countries is a world-wide trend, impossible for Canada to ignore. Therefore, it is the responsibility of Canadian governments to adapt industrial production in line with the present international realities. The Council states that much of Canadian production is concentrated in those industries which will be experiencing high unemployment, increased costs and greater foreign competition, thus placing a substantial burden on the Canadian economy. The policy proposed by the Council is that the Canadian government assist these industries towards rationalization and consolidation so that they will be in a better position to compete in world markets. These changes, which could require a period of 15 years to complete, would be financed by the redeployment fund. A maximum of 250,000 workers, or about 15% of the industrial work force, could be affected.

Aware of the hardships that could occur by the elimination of tariff and non-tariff trade barriers in these industries, the Council recommends that no significant action be taken until the unemployment situation improves.

New incentives for industrial research and development

by John Coleman
and Frank Swedlove

A major new program of incentives for research and development was announced recently by the Canadian government — and comes on top of several new or improved incentives introduced in the past 12 months. The total package of current incentives makes Canada one of the most generous of all countries in its financial support for research and development.

The offering of R & D incentives is, to some extent, an expression of faith — faith that the business community will respond with enthusiasm and effectiveness. It is a greater gamble for Canada to offer R & D incentives than for almost any other industrial country, mainly because of the exceptionally high degree of foreign ownership in Canadian industry.

The nature of the R & D carried out by a foreign-owned subsidiary is determined to a large extent by its relationship with its parent. Different intracorporate R & D policies and relationships lead to great variations in types of R & D activities on the part of subsidiaries and in types of economic benefits and spinoffs in the host country. From the Canadian government's standpoint, the success of its R & D incentives will depend crucially on whether they foster the "right kinds" of corporate relationships and activities. This important question of the "right kinds" of parent-subsidiary R & D relationships is discussed below in detail.

The Canadian economy appears to need, with growing urgency, a stimulus to industrial change. Canada's low-skill, labour-intensive industries have been under increasing pressure from producers in other countries. The pressure is likely to continue to grow, especially if the trend towards freer world trade continues. It will become steadily more necessary and urgent for resources to shift out of low-skill, labour-intensive activities into technology-intensive, skill-intensive activities. This is particularly true if a sufficient number of suitable jobs are to be created for the country's growing and increasingly well-educated labour force. A substantial increase in industrial research and development could well be the much-needed stimulus to industrial change.

A study done recently in the United States shows that high-technology manufacturing industries in that country perform much better than low-technology manufacturing industries in virtually all respects, such as in terms of production, employment, and productivity growth and in terms of price stability. (Roger Brinner and Miriam Alexander, *The Role of High Technology Industries in Economic Growth*, a report prepared for the General Electric Corporation, March 1977.) For the period 1950-74, high-technology industries compared with low-technology

industries showed annual average production growth of 6.7% compared with 2.3%, employment growth of 2.6% compared with 0.3%, productivity growth of 4% compared with 2%, and price increases of 0.5% compared with 3%. Canada's Ministry of State for Science and Technology has been conducting a study comparing high-technology and low-technology industries in this country, and the findings are very similar to those in the U.S. study.

Canada ranks quite low in R & D spending by comparison with other industrial countries in the western world. While Canada spends about 1% of its gross domestic product on R & D, the United States spends 2.3%; Switzerland, 2.2%; West Germany, 2.1%; France and Sweden, 1.8%; and Japan, 1.7%. Not surprisingly, these high investors in R & D are the leading countries, economically, in the world. The Canadian government expects that R & D spending in Canada will rise to 1.5% of gross domestic product by 1983.

Another figure which concerns the government is that only 40% of all R & D spending in Canada is done through the business sector. In the previously mentioned other countries as a group, the business sectors account for over 60% of total R & D expenditures. Switzerland leads all countries at 77%. The Canadian government expects that, by 1983, business firms will account for a greatly increased proportion of all R & D expenditures in Canada.

If Canada succeeds in fostering the "right kinds" of corporate relationships and activities among foreign-owned firms not only will more research be done in Canada, but so will a higher proportion of the innovation and other developments that generate production and jobs. A particularly important result would be an increased freedom and vigour in exporting by subsidiaries and a significant narrowing of Canada's trade deficit in high-technology products. A recent government study finds that Canada's trade deficit in high-technology products has been widening steadily and amounted in 1976 to \$2.6 billion. (*Canadian Trade in Technology-Intensive Manufactures 1964-1976*, an internal report by the Ministry of State for Science and Technology.)

Parent-subsidiary R & D relationships

Parent-subsidiary R & D relationships can be categorized into four types. In some cases, only one of the types of relationship exists between the parent and the subsidiary. But it is also possible for more than one type, and for all four, to occur simultaneously between a parent and a subsidiary. While each type offers

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some benefit to Canada, two of the four types clearly have more of the elements to make them the "right kinds" from the country's standpoint. Let us look at each type of relationship in some detail.

1) *Adaptation for local market*

In this situation, the subsidiary's R & D laboratory acts primarily as a centre to adapt products or production technology for the Canadian market. This is probably the most common kind of parent-subsidiary R & D relationship in Canada, as noted and discussed in H. Crookell and L. Wrigley's article concerning innovation and ownership. ("Canadian Response to Multinational Enterprise", *Business Quarterly*, University of Western Ontario, Spring 1975.) In the case of production technology, new processes or equipment are adapted to the specific needs of the Canadian operation. This is often quite significant, because the Canadian subsidiary often has much shorter production runs than its parent. Adapting of the process or equipment, sometimes in quite ingenious ways, may largely offset the disadvantages of short production runs.

Also, the end product may be adapted so as to better suit Canadian needs and tastes or to meet different Canadian legal standards. An example of the latter situation occurred in the early 1970s when Canada introduced legislation for environmental purposes requiring lower phosphate levels in laundry detergents. Lever Brothers Limited in Toronto, a subsidiary of Unilever Limited of the United Kingdom, needed to change the composition of the detergent so as to lower the phosphate level while maintaining the overall quality of the product. This research and recomposing were done entirely by the Canadian subsidiary.

While process and product adaptation can mean improved efficiency and more market-suited end products, this kind of research and development may not be as beneficial to Canada as some of the other types. First of all, Canadian personnel and facilities are used at only the end of the R & D process, rather than also at earlier stages. Secondly, the finished product will probably be for only the domestic market, because in these cases the possibilities of exporting are slim.

2) *Integrated satellite laboratory*

Here the control of the Canadian subsidiary's R & D program is located with the parent firm. The parent directs its international subsidiaries to perform types of R & D which can be integrated with that being performed in the central laboratories. Often the parcel of R & D assigned to each subsidiary is chosen to match certain of the skills held by that subsidiary.

In this relationship there is a very high degree of coordination between the subsidiary and the parent. Normally the results of the subsidiary's R & D are returned to the parent and so, as in the adaptation relationship, there is little or no opportunity for the subsidiary to increase its exports. However, the satellite-laboratory relationship generally involves a greater variety of Canadian technical people than does the "adaptation" relationship — and generally leads to a greater and more varied development of Canadian expertise.

The satellite-laboratory relationship can involve a substantial commitment by the parent company to the performance of R & D in Canada. For example, the IBM Canada laboratory has been in operation since 1967 and today employs over 300 people, more than 60% of them university graduates. The assignment of development projects to the IBM Canada laboratory is coordinated with the activities at the international head office and at other subsidiaries so as to avoid duplication of development effort. Assignments are based on the facilities and skills of each laboratory.

The contributions of IBM Canada's research and development to Canada

have been quite large. For example, the company has created software for the implementation of the on-line banking that links bank branches to central computers for updating customer's accounts. Other software developments include techniques for increasing the productivity of computer programs and for widening the usability of programming systems. The company has, as well, made several advances in hardware development, especially in such products as data entry devices, banking terminals, and special purpose processors. There have even been some Canadian production and exporting benefits resulting from the R & D in Canada. One example is the off-track betting system developed in the IBM Canada laboratory and manufactured in the Canadian plant for export to a number of customers in Australia.

3) *Selected international product mandates*

In this case, the parent company assigns to the subsidiary exclusive responsibility for all aspects of the research and development in one or more product lines. This type of arrangement offers substantial benefits to Canada. Expertise is developed in all stages of the R & D

Details of Incentives for R & D

On June 1, 1978, the Canadian government announced a new program to increase its expenditures by \$28.7 million in fiscal year 1978/79 to strengthen and encourage R & D in Canada. Most of this increase is earmarked for industrial R & D and adds to the broad range of existing incentives. The overall incentives package is described below.

- Tax measures to encourage R & D in Canadian industry include the already-established 100% write-off of business expenses, defined to encompass all current and capital expenditures for R & D. Since April 1, 1977, these R & D expenditures have also been eligible for a 5-10 percent investment tax credit. An additional measure, announced in the budget of April 10, 1978, allows companies to deduct from taxable income, over a ten-year period, a further 50% of those current and capital scientific expenditures for a given year that exceed the average R & D expenses incurred in the preceding three-year base period.

- Grant programs relating to industrial R & D include those of the Innovation Panel of the Enterprise Development Program, which provides assistance for innovative projects; the Industrial Research Assistance Program, which provides salary assistance for industrial research projects; the Program for Industry/Laboratory Projects, which funds

research projects transferred from government laboratories to industry; the Scientific and Technical Employment Program, which underwrites the salaries of scientists and technicians working on research projects for industry; the Defence Industry Productivity program; and others. These programs are part of the Canadian government's \$275 million support of industrial R & D in the current fiscal year. (A booklet describing most of these programs is available under the title *Canadian Federal Government Services to Business* from the Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, K1A 0H5.)

- Other new measures to support industrial R & D include an extension to the National Research Council's Technical Information Service, which already provides technical advice to industry and will now provide engineering students for short periods of time to help solve technical problems; Canadian Patents and Developments Limited, which will be acting as a clearing house for the transfer of technology from government to industry; creation of several Industrial Research and Innovation Centres at universities; development of six Regional Centres of Excellence for research in projects that are of national concern; and others.

process. A great variety of challenging jobs are created for Canadian scientists, technicians, and engineers. Moreover, where economically feasible, the exclusive rights given to the subsidiary for carrying out R & D may be extended to include worldwide sales and production chartering rights. This can mean large increases in Canadian employment and exports and can generate wide secondary effects throughout the Canadian economy and society.

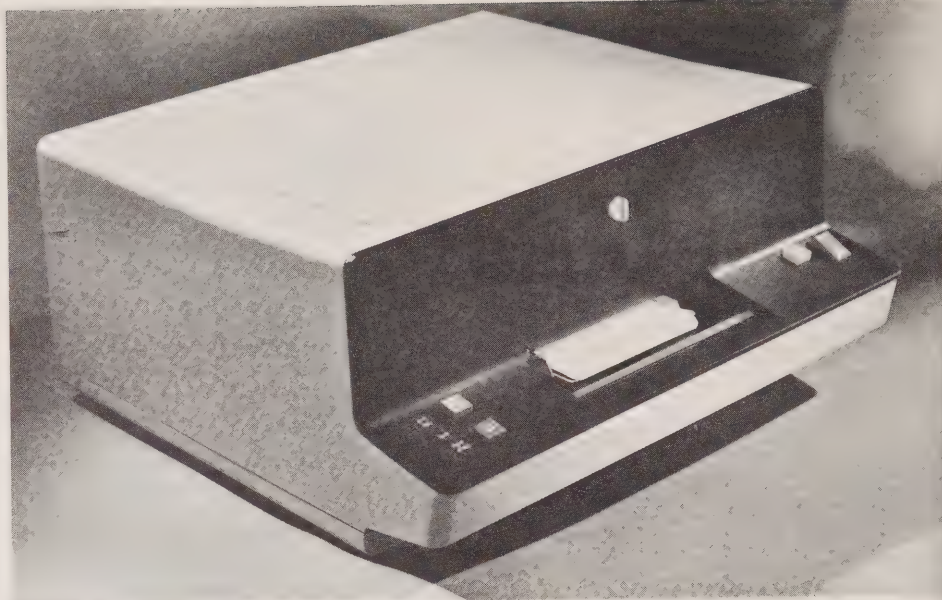
There are numerous examples of international product mandates in Canada. Worthington Canada Ltd. of Brantford developed, with government grant assistance, a new line of slurry pumps which they market exclusively worldwide. Pratt and Whitney Aircraft of Canada, a subsidiary of United Technologies Corporation, was given the entire corporate mandate for developing small gas turbine engines and the responsibility for marketing these engines internationally. Du Pont of Canada Ltd., a subsidiary of E.I. du Pont de Nemours of the United States, has been responsible for almost all of the development of the technology for polyethylene film and nylon film and for the manufacture and sale of these products in Canada and abroad.

4) Full autonomy

In this case, the subsidiary is free to carry out R & D as it sees fit. This type of relationship gives the subsidiary a great deal of opportunity to be truly innovative. Expertise is developed throughout the R & D process across a range of lines. The possibilities for worldwide production-chartering and exports are, of course, excellent. It is rare for the parent-subsidiary relationship to start in this form, but it sometimes evolves to this form as the subsidiary matures.

This is what occurred with Union Carbide Ltd., a subsidiary incorporated in 1922 by Union Carbide Corp. of the United States. In 1975 a major policy change was introduced. The Canadian subsidiary acquired the mandate to carry out research and development on any product as it wished and to produce and market it internationally.

Another good example of relatively autonomous R & D is the case of Ferranti-Packard Ltd. Of Toronto, a wholly owned subsidiary of Ferranti Ltd. of Britain. W.L. Hetherington, the president in Canada, states: "The Canadian company has its own research program. We research, develop, design, manufacture and market, worldwide, our own products. There is very little overlap of U.K. and Canadian products, but where there is — in medium-size power transformers, for example — we compete



IBM Canada's laboratories have perfected a new banking terminal which links bank branches to a central computer. Shown here is a passbook printer which updates customer accounts.

with each other. This competition takes place principally in the U.S. market."

From the discussion above, it is evident that the amount of benefit accruing to Canada depends a good deal on the type of R & D relationship between the foreign parent and its Canadian subsidiary. Generally, the full autonomy type of relationship offers the most benefit, allowing the subsidiary to pursue and demonstrate its creative potential, to gain experience at all levels of the R & D process, and to produce and export the fruits of its endeavours. The R & D relationship that gives to the subsidiary selected international mandates is the second most beneficial type. It allows for all the advantages of autonomy, except that it restricts the autonomy to a few specific products. This limits the creativity possible within the subsidiary. It also tends to limit the subsidiary's ability to pursue spinoff product opportunities and to diversify into other technology-intensive businesses.

Meanwhile, the integrated satellite laboratory approach may involve large expenditures on R & D in Canada, but offers limited benefits with respect to production and especially to exports. However, in some industries where product lines are not easily divisible and the need for coordination among the research units is substantial, this kind of approach may be the only realistic choice. The R & D relationship offering the least number of benefits is the "adaptation" type. While some efficiencies in production may occur, this type generally offers very few new production and no export opportunities, involves relatively small outlays of funds, and generates expertise in only a narrow phase of the R & D process.

The kinds of intra-corporate R & D policies that the Canadian government would most like to see are, of course, those in which the Canadian operation has a high degree of autonomy in its decision-making. Meanwhile, the granting of some or complete R & D autonomy by the parent company to the subsidiary is not necessarily a one-way street. The multinational corporation as a whole may benefit by allowing more R & D autonomy to its Canadian subsidiary. Autonomy encourages the subsidiary to be more creative and to show more initiative in the developing and marketing of any new product. This enthusiasm can mean increased profits for both the subsidiary and the multinational corporation, as well as benefits to Canada through growth of expertise, employment, production, and exports.

The conventional wisdom that argues for centralization of a multinational company's R & D function and its strategic planning for products and markets does not always apply. For example, while a desire for close interaction between a firm's R & D group and its policy planning body tends to foster a notion that a "research-push" strategy is generally appropriate, the reality is that in many industrial situations a "market-pull" approach to product innovation is more sensible. Or, in industrial situations in which advanced process — as distinct from advanced product — technologies are critical factors for achieving success, it is often more logical to place R & D in proximity to manufacturing centres than in proximity to corporate headquarters. In many circumstances of these kinds, there are sound reasons to diverge from tendencies to centralize R & D and the decision-making responsibility for products.

Foreign investment review process

When the Canadian government assesses an investment proposal that is reviewable under the Foreign Investment Review Act, one consideration (where it is relevant) is the investor's R & D plans for the Canadian business. Among the elements which the government looks for in the investor's R&D plan are that:

- research and development will be carried on in the Canadian company or possibly contracted out to other Canadian institutions;
- the Canadian company will be allowed to explore to the greatest possible extent any new high-technology product opportunities that might arise from its Canadian research and development;
- the Canadian company will be allowed to manufacture and market, on a worldwide basis instead of just in Canada; the technologically advanced products it initiates;
- the Canadian company will be assigned the exclusive corporate responsibility for research, development, manufacturing, and worldwide marketing of specific high-technology products or product lines;
- the Canadian company will be allowed to diversify into other technology-

intensive businesses in Canada;

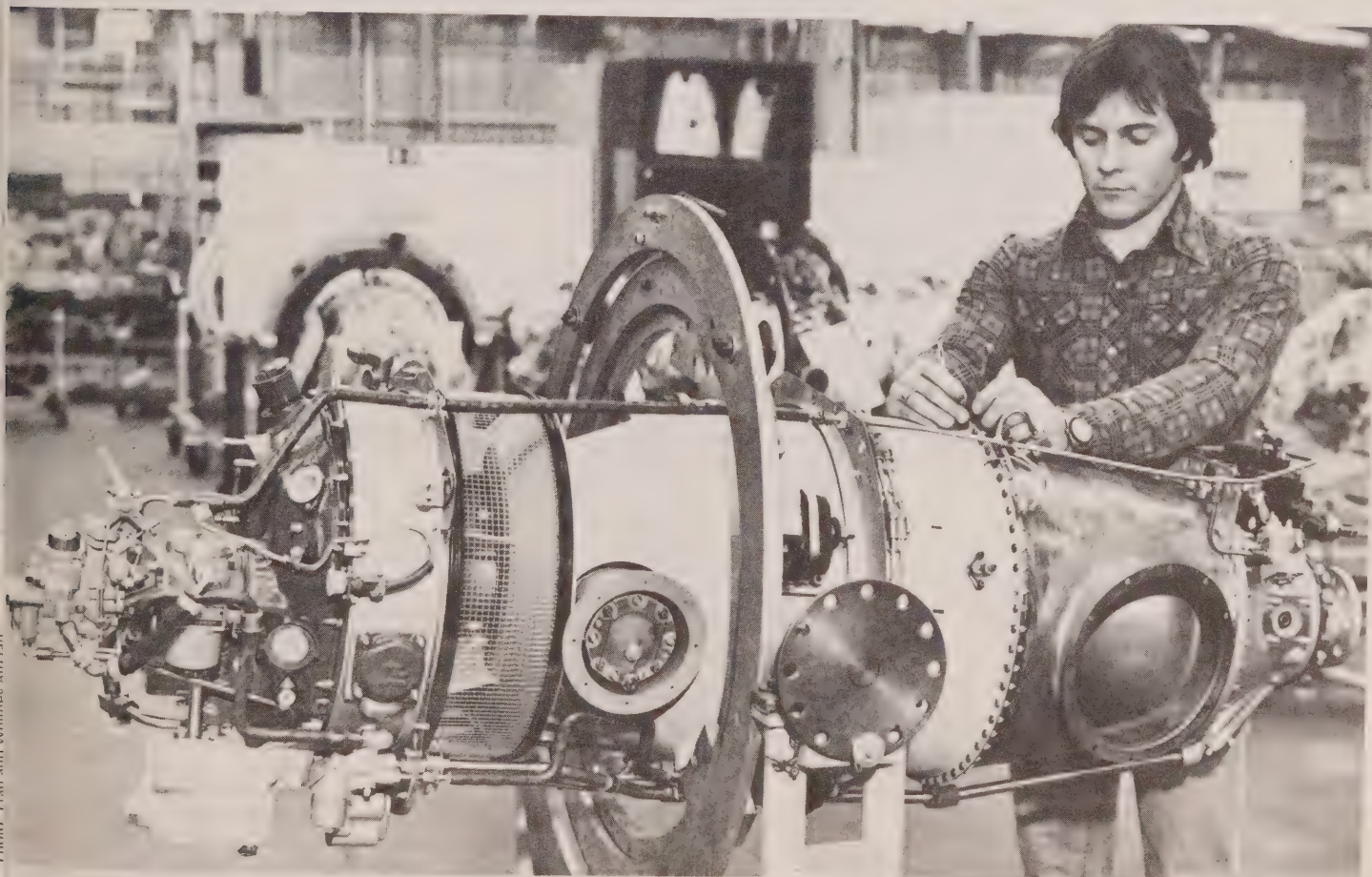
- technology-intensive Canadian service industries — such as computer services, geological consulting, aerial surveying, or ocean engineering — will be employed whenever possible.

Of course, it is by no means always possible for the investor to offer the "ideal" intra-corporate R & D policy towards the proposed Canadian operation — and an acceptable case can often be made for one of the other relationships. Also, it should be remembered that benefits to Canada which stem from research and development are only one area of possible benefits and that other kinds of benefits too are important in the assessment.

In any event, the Canadian environment is in many respects a very suitable one for R & D activity. As mentioned earlier, the government's tax incentives and grant programs make the financial considerations for investors among the most attractive in the world. In addition, Canada has a well-developed infrastructure, including extensive contract laboratory facilities and related services. There are eight provincial research organizations, eight specialized

industrial research associations, nine centres of advanced technology, and ten industrial research institutes. As well, Canada has one of the world's most highly educated populations and an excellent communications network.

In short, the Canadian government sees the domestic environment as very conducive to R & D activity, sees its financial incentives for R & D as exceedingly generous, and expects that more of the "right kinds" of R & D relationships will be established in Canada. An R & D relationship that is compatible with the realities of the industry and, at the same time, allows as much autonomy as possible to the subsidiary is seen to offer maximum potential benefits to Canada. For its part, the subsidiary will develop more creativity and business initiative and be better able to exploit the increasingly numerous new technological opportunities. It should thus grow more rapidly and be more resistant to obsolescence. This, in the long run, is apt to mean higher profits for both the Canadian operation and the multinational corporation.



Research carried out by engineers within its Longueuil plant in Québec enabled Pratt and Whitney Aircraft of Canada to market this turboprop engine with a unique transmission.

Investment opportunities and prospects in the Atlantic provinces

by Lyndon Watkins

Many foreign investors, when they think about Canada, have in mind a country stretching from Montreal to Vancouver, dominated by the industrial might of Ontario and the oil wealth of Alberta, and all of it conveniently close to the big markets of the United States. This impression is a pity because not only does it deny geographical reality, it runs contrary to sound investment sense.

Canada has trading ties with many more countries than the United States. It is well positioned to serve them and has the transportation links to do so. Moreover, the country doesn't begin at Montreal and end at Vancouver. Still waiting to be discovered by many overseas investors is Atlantic Canada — the four provinces of Newfoundland, Nova Scotia, Prince Edward Island, and New Brunswick.

This region of rich natural resources covers 210,000 square miles, has a population of 2.2 million, produces a gross domestic product of \$11.2 billion, and generates \$4 billion of annual retail consumer demand.

With six major ports and two international airports, the region is the interface for nearly 40% of Canada's external trade. It's the country's chief source of fish. It's potentially a big producer of oil and gas. Fifteen percent of Canada's non-fuel mineral output and 12% of its forest products are produced there. It contains some of the world's largest hydro-electric developments. It's long been a centre of shipbuilding and of steel, coal, and iron ore production. It has a rapidly expanding manufacturing base nurtured by vigorous industrial research and development.

Atlantic Canada's human resources are equally well developed. The population is mostly old stock Canadian of both English and French language groups. By nature the people are conservative, but not overly cautious; enterprising, but not reckless. They form a mature, stable society with a distinctive, regional cultural identity. Atlantic Canada feels its time has come to take a larger part in national economic development. It is looking to an expansion of its resource industries, a strengthening of secondary manufacturing and service sectors, and further rapid increases in the use of high technology to foster industrial development.

Naturally the region is also out to maximize the advantage of its geographic location on the Great Circle shipping route, a location well placed both to export goods and to bring in commodities for further processing. Consideration is being given to the creation of free-port industrial parks for the assembly or further processing of export cargo.

The region has attracted such

multinational companies as Michelin and Volvo, who are taking advantage of its accessibility from overseas to bring in parts and materials for the North American production of their products. Smaller companies like Optyl Canada Ltd., the New Brunswick subsidiary of an Austrian spectacle manufacturer, are also finding they can effectively serve international markets from the region.

For some industries, such as petroleum refining, the region's principal attraction is its abundance of ice-free, deepwater ports. These ports are also why plans are now being made for strategic oil storage and for the import, processing, and pipeline distribution of liquified natural gas.

Ocean a bright hope

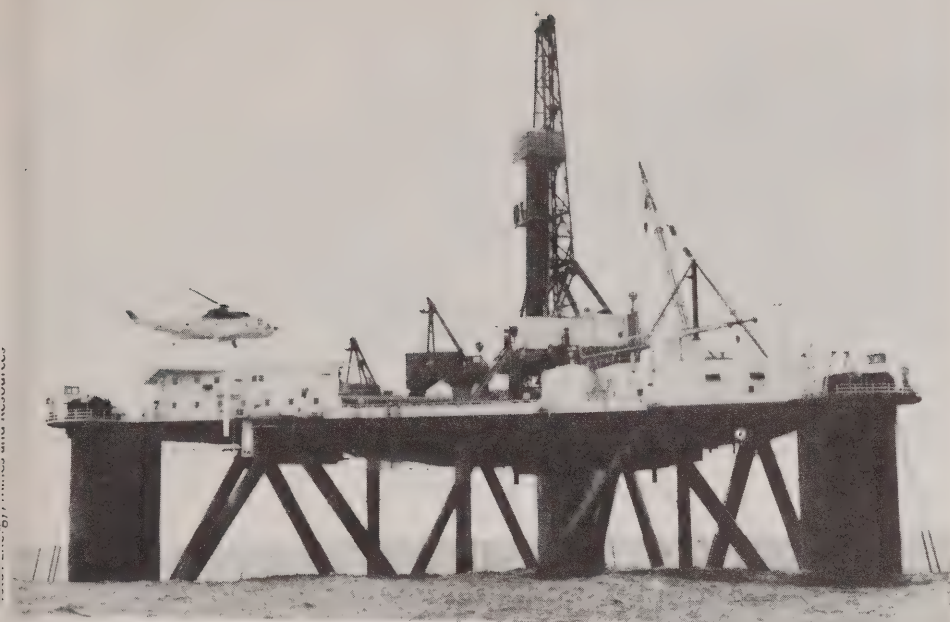
Three of the four provinces are collectively known as "The Maritimes". While some people regard the term as a misnomer, the ocean actually does have a very great influence over the entire economic life of the region. There is a renaissance of the fishery, a hope of renewed offshore oil and gas exploration, and a strong regional dedication to ocean science and engineering.

About 150 wells have been drilled off the coast. So far, oil and gas have been found in less than commercially exploitable quantities. But the search continues, funded mostly by Canadian, U.S., French, and British companies. A federal-provincial dispute about jurisdiction over the resource led to a cooling off in the pace of exploration. But with some of the doubts resolved, drilling is underway again off Nova Scotia and will resume off Newfoundland in 1979.

The Newfoundland waters appear to offer the best hope of success, along with the greatest technological challenge. When Shell Canada Resources begins its planned nine-hole program 175 miles northeast of St. John's next year, it will be drilling in water depths of about 5,000 feet — one of the greatest depths at which drilling has ever been attempted anywhere in the world. Here and in the Labrador Sea, there is the additional hazard of iceberg encroachment. But with both a considerable level of exploration activity and a brightening prospect of significant finds, the oil and gas industry offers both immediate opportunities for shoreboard support industries and a long-range prospect of large, integrated economic developments.

Both foreign and domestic industry have been involved. Hawker Siddeley Canada Ltd. built seven semi-submersible drilling rigs and a drill ship at its Halifax Shipyard. Plans are being considered for construction of concrete production platforms on the west coast of Newfoundland. The region is a major

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There will be a substantial increase in oil exploration on the Atlantic coast during the next few years.

cement producer and has the shore-based resources and suitable harbour facilities to make such construction attractive.

Traditional fishing industry has huge new potential

There is no doubt about the new opportunities offered by the fishing industry. Seriously weakened by years of over-exploitation, the industry is making a strong comeback. With international conservation measures and with the imposition, in January 1977, of Canada's 200-mile offshore economic zone, some fish stocks in the water have begun to recover. Corporate profitability has for the most part been restored after several years of losses and a need for federal price support.

The industry, which employs about 39,000 fishermen and 16,000 plant workers, processed about \$700 million worth of fish last year. About 65% of production has traditionally gone to the United States. But with that country now re-establishing its own fishing industry, Canadian companies are actively developing new markets in Europe and Japan.

In 1977 the Canadian catch of Atlantic finfish species amounted to 785,000 tons out of a total catch by all nations of about 1.3 million tons. With increasing stocks, a potential catch of 1.7 million tons is forecast for 1985 and Canada can expect to harvest much of that potential.

Because of the ravaging effects of previous over-exploitation, the federal government is hesitant about allowing too early a major expansion of the domestic

fishing effort. But by the mid 1980s, annual landings should be close to the projected sustainable level.

The opportunity for expansion of the Canadian fleet will vary greatly depending on the species caught. While federal authorities judge that the existing fleet is adequate for the expected recovery of groundfish landings up to 1985, the volume of new species to be caught will call for some increase in the number of vessels and considerable improvement in technology. Furthermore, a large investment will be needed within the next few years for vessel replacement, since many units of the existing fleet will soon have reached the end of their useful life. The two biggest of the fishing provinces,

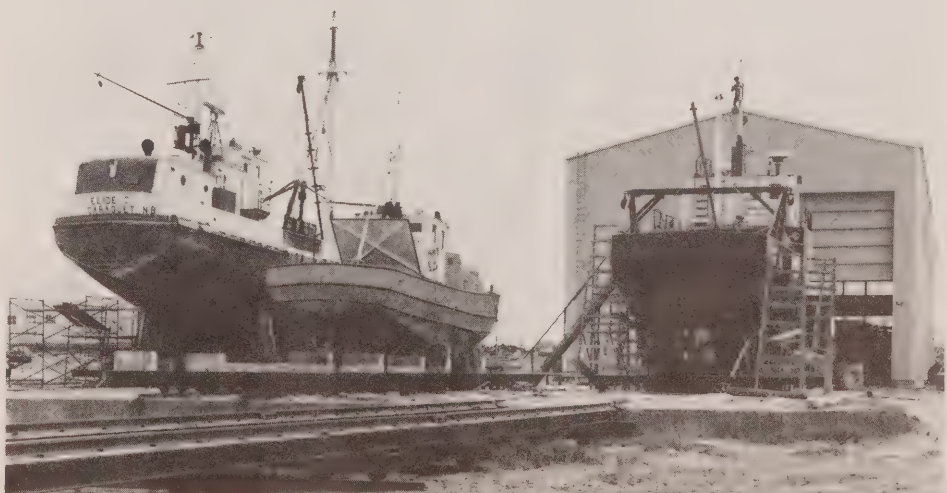
Nova Scotia and Newfoundland, have proposed a \$910-million fleet expansion and replacement program. New Brunswick has proposed a somewhat smaller one.

The consensus within the government and the industry is that Canadians should retain effective control over the resource and its use. But there is a willingness, particularly on the part of the provinces, to entertain a limited degree of foreign participation. Because fishing joint ventures have not always been successful elsewhere, Canada is likely to look at such proposals closely and is unlikely to entertain proposals that would involve surrendering control over the harvesting or processing of the fish.

Other kinds of cooperation are possible, however, and to some extent they have already taken place. Several Canadian fishing companies have leased foreign freezer trawlers to gain technical experience and greater knowledge about the catching and processing of unfamiliar species of fish. Other kinds of cooperation have involved new market penetration, and this could extend into product and packaging innovation.

Both Atlantic provinces and the fishing industry see the need for some outside capital and technical and marketing input. The most appropriate vehicle for obtaining them is seen by some observers to be a limited degree of foreign equity participation. The federal government, meanwhile, is concerned to ensure a high degree of Canadian control in the industry.

Thus, for instance, controversy surrounded a recent proposal for Nordsee, the West German subsidiary of Unilever NV of Holland, to gain a 51% interest in Ocean Harvesters Ltd. of Newfoundland.



Replacement and renovation of the fishing trawlers will increase the capacity of the Canadian fleet.

Photo: DREE

Industry feeling, as expressed by the president of one of the country's largest fish companies, is that a 25% foreign equity position in some companies might not be inappropriate. "But I think it would be unwise for overseas investors ever to expect to gain more than 50%," he said.

Even under constraints of the kind mentioned, the investment potential for foreign investors still seems quite considerable. The east coast fishing banks are among the most productive in the world. Once replenishment of fish stocks has taken place, some experts believe, there will be a need for some large new Canadian fishing vessels. This suggests opportunities not only in fishing, but also in shipbuilding.

While the shipbuilding industry has been experiencing a difficult time in eastern Canada as in the rest of the world, better days seem to lie ahead.

Among the region's other resource industries, mining is another that has a bright future. Although it has not, of course, escaped the chilling effects of reduced world demand and lower metal prices, the outlook in these respects appears to be brightening.

Mining and energy

Total non-fuel mineral output in the four provinces last year was about \$1.2 billion, the leading product being iron ore produced in northwestern Labrador. Within a decade, output could easily rise above the \$1.5-billion mark.

Foreign participation in the industry is considerable. Investors seem satisfied that provincial attitudes are reasonable in regard to taxes and royalties and in not being too insistent upon local processing.

Even with the weak international demand situation, all four provinces have been enjoying a considerable exploration boom, and two new mines have recently been committed for development. One is in New Brunswick, where Potash Co. of America has announced a \$106-million potash development. The other is in Nova Scotia, where Imperial Oil Ltd., Exxon Corporation's Canadian subsidiary, is planning a \$26-million, 1,500-ton-a-day zinc-lead mine. In addition in Nova Scotia, the Yava lead deposit is attracting the interest of Barymin Explorations, to the extent that a milling plant has been purchased and further financing is being sought.

With several other potash prospects under evaluation in New Brunswick, the province could emerge as an important new Canadian source of the mineral and, in time, account for up to 20% of total domestic output, currently above 6 million tons annually.



Coal extraction has increased considerably within the last few months.

The New Brunswick finds are important commercially not only because they are the first economically exploitable reserves of the mineral in the region, but also because they are only a short rail haul from the deep-sea port of Saint John.

Uranium too is widely prevalent through the region and is attracting a lot of international investment interest.

Among other energy-related projects which offer large and varied opportunities for foreign participation, the most important is probably the massive hydro-power potential in the rivers of Labrador and in the enormous tidal fluctuations of the Bay of Fundy which lies between Nova Scotia and New Brunswick. London merchant bankers N.M. Rothschild and Sons financed the \$960-million, 5,255-megawatt Churchill Falls power project opened in 1973 and subsequently bought by the Newfoundland government from its original owners, Brinco Ltd., controlled by Rio Tinto-Zinc Corp. Ltd.

Newfoundland and Labrador Hydro Corporation, a provincial utility, has been keen to develop two additional hydro sites downstream from Churchill Falls. These would provide 2,400 megawatts of additional power, and cost \$3 billion to develop. Long-standing differences over contracted prices between Newfoundland and its sole customer for the existing power, Hydro Quebec, have prevented a start being made on further development. But these differences may soon be resolved.

This could renew Newfoundland's ambition to have another large, power-intensive industry on the island portion of the province, providing base-load justification for an undersea transmission line from Labrador. The present big user of Newfoundland power is a phosphorous plant owned by U.S. interests which now uses power generated within the island. Aluminum producers, both Canadian and foreign, have expressed interest in establishing a smelter in the province.

The high cost of imported oil has given added momentum to a joint government investigation of the technical and economic practicality of harnessing the tidal energy of the Bay of Fundy for electric power production.

Out on a limb of high cost oil-derived energy, Nova Scotia has particularly cherished the idea of getting almost limitless, relatively cheap, clean, and stable-price power from the tides — which are the highest tides in the world. The idea is to build a dam across one or more of the many inner basins of the bay. One site alone is thought capable of producing 2,000 megawatts of energy, equivalent to almost twice that now produced by conventional means in the province. And a series of plants might ultimately turn out 8,000 megawatts, more than enough to meet the whole region's needs well into the 21st century, as well as to provide a lucrative source of export earnings.

Preliminary studies suggest that

Fundy-tide power could be produced for between 18 and 29 mills a kilowatt. This is in line with present oil-produced power costs and competitive with prevailing rates for power in parts of the U.S. northeast.

The region is augmenting and diversifying its power sources by constructing a 600-megawatt Candu nuclear power station at Point Lepreau, N.B., by greatly expanding its coal-fired output, and by pursuing solar and wind-power alternatives.

Again, foreign investors are playing a significant part in much of this. George Wimpey Canada Ltd., the Canadian subsidiary of the big British civil engineering and construction company, has contracted to develop the first of what will be several coal strip-mines in Nova Scotia. Under the arrangement, Wimpey receives a fee for service while the province retains the mineral rights and has exclusive call on what is produced. Nova Scotia has about 40 million tons of coal lying within 200 feet of the surface and at least 2 billion tons of accessible deeper coal.

Secondary manufacturing finds new attractions

While the resource industries have traditionally attracted much of the region's foreign investment, trends to greater industrialization in the 1960s and 1970s have now tipped the balance of investor interest towards secondary manufacturing.

Investors in manufacturing locate in the Atlantic region for one of two reasons: to displace imported products in the regional markets or to use local resources and the advantages of seaboard location to bring in parts and materials for the creation of products for the North American or world markets.

Typical of the latter category are Michelin Tires, Crossley Karastan Carpet Mills, and Volvo Canada. They are based in Nova Scotia, and all three have achieved more than they originally expected when they located in the province.

Michelin and Volvo each imports parts and materials for assembly or processing and each makes considerable use of the big Halifax container terminal, which has direct service links to Europe, the United States, the Middle East, and the Far East.

Sea transportation ceased to be a major locational factor for Crossley Karastan after it replaced natural imported wool with synthetics in its carpet production. At present its raw material comes from North American suppliers, but company president Donald A. McLeod notes that being by the sea gives the company the flexibility to buy elsewhere should

circumstances change.

The firm does not reveal sales or production figures, but its success can be measured by the extent to which employment has grown. When the original plant opened, it had 40 workers; now, after several major expansions, it has 600. McLeod recently stated that the company has found, in Nova Scotia, a stable work force, a pleasant environment, and people oriented to problem solving, not problem making.

McLeod has even been able to deflate the myth that an Atlantic area location automatically means high costs of land transportation. With an eastward preponderance in freight movements through the Atlantic region, he pointed out, truckers are anxious to find backhaul loads to central parts of the continent and have shown themselves willing to negotiate very favourable rates.

Power costs are also only a marginal factor for Crossley Karastan, but McLeod admits that if the company's operations were highly power-intensive, it might be at a competitive disadvantage being based in Nova Scotia.

A new impetus for research and development is paying off

One illustration of the region's methods of attracting new industry is Industrial Estates Ltd., the first industrial development agency of its kind in Canada. The aim is to find companies whose goods and services production can be importantly related to the local resource base and preferably, as well, who have technology transfer to offer.

All four provinces want to increase the sophistication of their manufactures and, to do so, have invested considerably in applied research.

With strong federal support, Nova Scotia and Newfoundland concentrate on marine engineering and cold ocean science; New Brunswick and Prince Edward Island are involved in agricultural and forest endeavours; and Prince Edward Island is gaining a growing reputation as a national centre for alternative-energy research. It has established a centre served by solar and wind energy and known, appropriately, as "the Ark".

The impetus for much of this research and development activity comes from organizations such as the Bedford Institute of Oceanography, the second largest centre of its kind in the western world; provincial research foundations in both Nova Scotia and New Brunswick; the Newfoundland Oceans Research and Development Corporation; and the graduate and research departments of the region's leading universities.

There has been considerable development of known technology and products. A Dartmouth (Nova Scotia) firm recently devised a modified complete deep-diving system. It consists of a pressurized, environmentally controlled surface habitat, a diving bell, and a 2,000-foot umbilical which carries power, air, heat, and communication.

The Nova Scotia Research Foundation played an essential role in the development by devising electrical-slip-ring and rotary-gas-valve mechanisms which allow supplies to be transmitted through the umbilical without



Volvo is one of the first international companies to take advantage of Nova Scotia's proximity to North America's principal markets.

Photo: DME

interruption while the diving bell is being lowered or winched to the surface. These relatively inexpensive units are among a number of advanced engineering products that stem from the Foundation's applied research and are available for commercial production in the province under license. The list includes such items as a deep-towed sub-bottom profiler which has been used successfully in North Sea oil exploration, a hyperbaric pump used in diving life-support systems, a deep-ocean acoustic positioning system, and a gamma-scanning system used in the province's heavy water production industry to detect corrosion.

Both the Nova Scotia body and the New Brunswick Research and Productivity Council offer technical information and marketing support for industry and, because of the sense of proximity and community, are able to work on a very personal basis of cooperation.

According to Dean Salsman, President of Industrial Estates Ltd., the front-end research effort is even greater than the middle-ground application. "There has to be a greater amount of support-industry activity before we can expect to see in this region the kind of science-based activity they have in a centre like Boston. But it's on its way."

The involvements are by no means restricted to ocean engineering. Companies like Nautical Electronics Laboratories Ltd. at Hacketts Cove, Nova Scotia, and Hermes Electronics Ltd. at

Dartmouth are selling defence electronics and commercial communications equipment throughout the world. And through such regional firms as Enamel and Heating Co. Ltd. and IMP Ltd., there's a considerable involvement in aerospace production.

All these areas of development would seem to hold many opportunities for further investment.

Prince Edward Island and Newfoundland, although they have the least developed secondary manufacturing base, are nevertheless finding interesting ways to attract domestic and foreign investors to their very real manufacturing opportunities.

Prince Edward Island is Canada's smallest province. The garden-like setting of its agricultural and tourist-based economy makes it extremely attractive for small-scale light manufacturing industry. The provincial government, through its Industrial Enterprises Ltd. organization and with financial support from the federal government, has established a number of industrial malls. These provide space on a graduated rental basis to a variety of different industries grouped within single buildings. Each industry occupies between 2,500 and 4,000 square feet and employs four to 20 employees. For each group of industries common telex, cafeteria, and administrative arrangements are available, and the idea is to encourage individual enterprises to outgrow the "incubator" and move into larger premises on the industrial estate.

The process has had a good deal of success. Several firms have moved into new, larger premises of their own, and the range of products has steadily expanded. The proximity of other small businesses results in a lot of business interaction and greatly reduces the need to rely on manufacturing support from outside the province.

Foreign investment has been attracted from such countries as Sweden, Britain, Italy, and the United States, and Industry Minister John Maloney thinks a new push that is now being made by the province to contact investors throughout the EEC will add substantially to the list. The degree of technological sophistication is already quite high, and Dr. Maloney is confident it will continue to rise. He thinks the alternative-energy field, including the possible production of solar heating systems and windmills, should provide manufacturing opportunities suitable to Prince Edward Island. As well, he says, there are many obvious investment opportunities for the upgrading of present fish and vegetable processing activities.

Newfoundland's approach to small business investment has been to look at sectors where products are now brought into the province for local distribution. John Tibbitts, a director of business development for the Newfoundland and Labrador Development Corporation, says his organization has identified a considerable list of product opportunities ranging from canned cream to building supplies.

On the heavy industrial side, Newfoundland is looking for new operators for two major industries which ran into operating and financial problems within a year or two of being established. These are the 100,000 barrel a day Come-By-Chance oil refinery and a 350,000-ton linerboard mill.

Foreign investors have often, in the past, been quick to notice opportunities overlooked by domestic investors. Jiffy Products Ltd. of Shippegan, New Brunswick, came about as a result of astute Norwegian investigation of the peat deposits in the province's northeast region. It considers the peat to be among the best in the world and has developed international markets for its products.

Another Scandinavian manufacturer, noting the absence of a regionally based glass industry, established Ahlstrom Canada Ltd., which now employs 300 people at Moncton, New Brunswick. The company now makes most of the region's beer and pop bottles.

New Brunswick's Deputy Development Minister, J.P. Blanchard, is confident that the process can be repeated and that other investors, both foreign and domestic, will discover the advantages of locating in that part of the country.



Photo: Urban Affairs

Prince Edward Island has made a concentrated effort to conserve energy or to utilize alternative sources. Seen here is the Arc, a solar and aeolian energy research centre.

FIRA procedures: clarifying some legal issues

by Charles Simon

From the time of its beginnings in April 1974, the Foreign Investment Review Agency has welcomed investors and their legal representatives to contact the Agency for informal consultations on any of the various questions on which the Agency might provide helpful discussion and opinion. And increasingly, investors and their counsel have been approaching the Agency at a fairly early stage for such consultations.

On the Agency's part, most of these consultations are provided by officers of the Rulings Division. To illustrate briefly how the Rulings Division fits into the structure of the Agency, one might first note that the Agency is organized into three branches: the Assessment Branch, the Compliance Branch, and the Research and Analysis Branch. One of several divisions of the Compliance Branch is the Rulings Division. It is staffed by an assistant director and a number of rulings officers, all of whom are lawyers who are members of a provincial bar.

The primary function of the Rulings Division is to examine notices filed with the Agency pursuant to section 8 of the Foreign Investment Review Act. In order to constitute a "notice" for the purposes of the Act, the information filed by the applicant must include everything required by the Act and by the regulations. Every application submitted to the Agency is examined to make certain it is complete. If any information is missing, a deficiency letter is sent to the applicant (or his solicitor) describing the information which is required. As soon as a notice is complete, a receipt is prepared and sent to the applicant as required by subsection 8(4) of the Act, and the 60-day time limits referred to in Sections 11, 12, and 13 start to run.

The Act also provides, in subsection 4(1), that any person may ask the Minister for his opinion on whether he is a non-eligible person for the purposes of the Act or whether any particular business activity is related to any other business activity carried on by that person. It is one of the functions of the Rulings Division to identify for anyone seeking such an opinion the nature of the information required to enable the Minister to give his opinion and to prepare summaries of such information to accompany it when it is forwarded to the Minister.

In addition to the activities outlined above, the Rulings Division has another important function. Until a body of case law is developed interpreting the Act, it is important for the Agency to have a staff available to answer questions about the possible application of the Act to a particular transaction. Because these questions are essentially legal ones, it falls to the Rulings Division to provide this assistance. Rulings officers are always available to discuss the application of the

Act and the regulations. They will do so, if requested, verbally on a no-names basis. It is also possible to obtain a written opinion from the Agency as to whether an investment is reviewable under the Act. There is no statutory authority for the issuance of such opinions so they are not binding on the Minister, but such informal Agency opinions can be of practical comfort to investors.

In rendering advice on the reviewability of transactions, the Agency does not act the way a court does: that is, it does not form its opinion on the basis of a "balance of probabilities" test. The purpose of providing such a service is to give the benefit of the Agency's experience in administering and interpreting the Act. In cases where the Agency is satisfied that the Act does not apply, it will issue an opinion to that effect; but if there are valid arguments which can be made to support reviewability, the Agency will not issue a non-reviewability opinion, even though the arguments for non-reviewability are strong. In any event, regardless of whether or not a non-reviewability opinion is ultimately issued, rulings officers are quite candid in their explanation of the arguments as to the potential application of the Act to an investment, and the discussion can be most helpful.

Eligibility questions

With certain exceptions, the general rule of the Act is that the acquisition of control of a Canadian business enterprise and the establishment of a new business in Canada by a non-eligible person, or by a group of persons any member of which is a non-eligible person, requires approval of the Governor-in-Council. The Act defines what "non-eligible person" means [subsection 3(1)] and sets out presumptions as to when incorporated companies are non-eligible persons [subsection 3(2)]. But the Act gives almost no guidance on the meaning of the word "group" which is such an important element of the question.

Subsection 3(7)(a) provides that the reference to "group of persons" in the definition of "non-eligible person" does not include the aggregation of persons who own all the shares (or all the shares of a particular class) of the corporation, except where "those persons act in concert with one another in any matter or transaction affecting the corporation or its management, ownership or financial affairs". The quoted language is so broad that it could include almost any agreement or understanding between shareholders. Because of the nature of the relationship between the shareholders of a closely held private company, there will almost always be some sort of agreement, either written or verbal, to which they are all

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parties. Does this mean that any closely held company is a non-eligible person simply because it has one minority shareholder who is non-eligible?

The Minister has considered this question and has apparently decided that the Act was not intended to be so broadly interpreted. There have been several opinions issued by the Minister pursuant to subsection 4(1) of the Act that a particular company with two or three shareholders (one of whom was a non-eligible person) is not a non-eligible person despite the existence of a formal shareholders' agreement, presumably because control of the company was with

wants to retire, the easiest way to complete the transaction may, in some cases, be for the company to purchase or redeem his shares. The Agency takes the position that such a purchase or redemption is an "acquisition of shares" (by the company) and that the minority shareholder has acquired control of the business carried on by the company by an "acquisition of shares".

It is likewise not necessary that the shares (or assets) of the Canadian business enterprise be *directly* acquired in order for the Act to apply. A large number of foreign-based corporations which carry on business in Canada do so, of course,

whereby he obtains substantial control over the business carried on by the company, it is probable that a reviewable transaction has occurred.

In dealing with asset acquisitions, the Act does not set out any threshold levels to aid in determining whether control of a business has been acquired. It simply says that control of a Canadian business enterprise is acquired "by the acquisition of all or substantially all of the property used in carrying on the business in Canada" [subsection 3(3)(a)(i)(B) and (ii)].

The Agency has not adopted any rigid criteria as to what constitutes "substantially all" the property of a Canadian business enterprise. Each case is considered on its own facts. Clearly, the "substantially all" test can be the quantitative one which involves comparing the dollar value of the assets being purchased with the dollar value of all the assets of the business in question. But the Agency takes the view that the test is also a qualitative one. That is, if the business has two or three key assets (such as a machine, a secret process, and a trade mark) and these assets are sold to a non-eligible person, the transaction may be reviewable even though the consideration paid for them is only a fraction of the value of the total assets of the business because of large values placed on other assets, such as land, buildings, and accounts receivable.

There is another provision of the Act which must be kept in mind in considering the question of whether "substantially all" the property used in a business has been acquired. The Act says that a part of a business that is capable of being carried on as a separate business is itself a Canadian business enterprise if the business of which it is a part is a Canadian business enterprise [subsection 3(6)(g)]. There are many instances where some of the assets of a Canadian business enterprise are acquired and where it can readily be determined that these assets do not, on either a qualitative or quantitative basis, constitute substantially all of the property used in carrying on the whole of the business of the Canadian business enterprise. It may be, however, that they make up substantially all of the property of a *separable* business — and therefore that the acquisition of these assets by a non-eligible person may be reviewable.

The question of whether a part of a business is separable is one that is often difficult to answer. Item V of the *Guidelines Concerning Real Estate Businesses* comments on this issue, stating that in order for there to be a separable business, there should already be in existence a separable business prior to the acquisition, not merely property that could or would be used as an asset of a separate business. It should also be

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the eligible shareholder(s). In these cases, the minority non-eligible shareholder only had a veto power over major changes in the company's operations, such as a change in the nature of the company's business or amendments to its charter, and such rights were presumably not deemed sufficient, in the Minister's opinion, to render the company non-eligible for the purposes of the Act.

Unfortunately, there is no authority to apply this reasoning to the provisions of section 8, which contains the substantive requirement to file a notice if a group of persons, any member of which is a non-eligible person, proposes to acquire a Canadian business or establish a new business in Canada. The result is that if an *unincorporated* group of persons proposes to make an investment to which section 8 applies, a notice is required if any member of the group is non-eligible, regardless of the size of that member's interest or the degree of control he has over the decisions made by the group.

Acquisition of a Canadian business enterprise

For the purposes of the Act, a reviewable acquisition of control of a Canadian business enterprise can occur only through an acquisition of shares or assets. It is important to realize, however, that a reviewable transaction can sometimes result even if the person acquiring the shares in question is not the person acquiring control. If, for example, two shareholders own 80% and 20% of a company, and the majority shareholder

through subsidiaries incorporated here, and the Act says that a parent corporation is deemed to be carrying on the business of its subsidiary [subsection 3(6)(h)]. Therefore the Agency has always taken the position that if control of the foreign parent is acquired by a non-eligible person through the purchase of its shares, the Act deems that control of the Canadian subsidiary is also acquired and that a notice must be filed with the Agency.

The Act sets out levels of share acquisitions beyond which it is presumed that control of a company has been acquired unless the contrary is established [subsection 3(3)(c)] (and also provides [subsection 3(3)(d)] that the acquisition of shares to which are attached more than 50% of the voting rights shall be deemed to be the acquisition of control unless the acquirer already controlled the company). But in considering the question of whether control of a company has been acquired, the Agency looks not only at the number of voting shares which have been acquired, but also at any ancillary agreements or understandings which may be entered into in conjunction with the purchase of the shares. Thus, although the Act says that the acquisition of less than 5% of the voting shares of a public company or less than 20% of the voting shares of a private company does not of itself constitute the acquisition of control of the company [subsection 3(3)(b)(i)], nevertheless if a non-eligible person acquires shares below these thresholds but also enters into an agreement with some or all of the other shareholders

Rulings officers are quite candid in their explanation of the arguments as to the potential application of the Act to an investment, and the discussion can be most helpful.

noted, however, that the existing "separable" business does not actually have to be carried on separately; it just needs to be capable of being carried on separately.

The Act requires that every non-eligible person, and every group of persons any member of which is a non-eligible person, that proposes to establish a new business in Canada must give notice to the Agency in the prescribed form unless the person or group had been carrying on a business, immediately before the proposed establishment of the new business, which could not be unrelated to the new business [subsection 8(2)]. As might be expected, this rather convoluted provision has created some difficulties in interpretation.

The first point to note is that the Act distinguishes between "establishing" a business and "carrying on" a business. For the purposes of the Act, a business is established only if there is an establishment in Canada to which employees report for work in connection with the business, and the business is established when the first of the employees reports to the establishment [subsection 3(4)]. But a business can be "carried on" in Canada without being established in Canada, since there is no requirement that there be an establishment in Canada to which employees report for work in order for a business to be carried on. For example, a foreign company could periodically send sales representatives to Canada to visit customers and take orders; the orders would be filled from outside Canada; and as the business might be "carried on" in Canada without being "established" here for the purposes of the Act.

Furthermore, if such activities have been carried on since before October 15, 1975 (the date on which the requirement to file notice in respect of a new business came into force), there are arguments that can be made to support the position that a business being carried on can subsequently be established in Canada without review. Notice is apparently only required in respect of the establishment of a business not previously carried on; so it might be argued that, if it can be shown that the business in question was carried on in Canada since before the notice requirement became law, no notice would be required to establish that business.

The Act does not provide any criteria for determining whether a business has been "carried on" in Canada and each case must be considered on its own facts — but Canadian courts have examined the question in connection with other statutes. Some of the factors they have focused on include the place in which the sales contract is made, the authority of the person who visits Canada to conduct the activities, and whether or not a stock of goods is maintained in Canada from which orders are filled.


Another nuance of interpretation is illustrated by the following example. Suppose that several non-eligible persons have each been carrying on business in Canada for many years (or have each established a business in Canada) and now propose to carry on the same business or a related business as a group. It may not be necessary for the several persons to have carried on the business as a group in order to avoid the notice requirement of subsection 8(2). It is probably sufficient if the proposed new business is "not unrelated" to (i.e., is the same as, or related to) the business carried on in Canada by each non-eligible member of the group.

As pointed out above, one of the essentials of a business being established in Canada is that at least one employee of the person or group of persons establishing the business report to work at an establishment in Canada in connection with the business. There are two other

aspects of this provision which deserve comment. First, one might wonder what qualifies as an "establishment" for the purposes of this requirement. It seems probable that, in addition to a business office or manufacturing plant, a construction site, oil well, or mining site would also suffice as an "establishment" under the Act.

Many businesses are proposed to be carried on in Canada as joint ventures between a Canadian and a foreign participant. In some cases the persons who will be conducting the business activities are to be employees of the Canadian partner and will report to premises owned or leased in the name of the Canadian partner — and the argument is made that the investment is not reviewable since the non-eligible joint venturer does not have any employees reporting for work in Canada in connection with the business. In most cases of this sort, however, the Agency is likely to take the view that the persons establishing the business are a group, the persons conducting the business are employees of the group, and the investment is reviewable. This view is adopted on the grounds that the non-eligible member of the group will almost always make some contribution to the salaries of the employees and to the costs of the premises — either directly or, indirectly, through a reduced share of the profits — so that there is a sound basis for saying that the employees are working for both participants and that the reviewability requirements of the Act are satisfied.

The preceding comments are not intended to give a comprehensive explanation of all the issues raised by the first eight sections of the Foreign Investment Review Act. There are numerous other subtleties of language which may have relevance to particular investments, and suggestions on possible new interpretations of various provisions of the Act are constantly being brought to the Agency's attention by investors and their advisors. And, indeed, in connection with potential investments in Canada, the Agency encourages investors to discuss the interpretation and possible application of the Act at an early stage, so that if reviewability under the Act is an issue, it can be dealt with so as to cause a minimum of delay.

	
OFFICE CONSOLIDATION	CODIFICATION ADMINISTRATIVE
Foreign Investment Review Act	Loi sur l'examen de l'investissement étranger
S.C., 1973-74, c. 16 amended by 1976-77, c. 52 and P.C. 1977-506 amended by P.L. 1978-2309	S.C., 1973-74, c. 16 modifiée par 1976-77, c. 52 et Règlement sur l'examen de l'investissement étranger C.P. 1977-506 modifié par C.P. 1978-2309 et Une codification des principes directeurs
A Consolidation of Guidelines made under The Foreign Investment Review Act	Établie en vertu de La loi sur l'examen de l'investissement étranger
1978	

Banking in Canada; the chartered banks

by Alexander Bruchovsky

Organized banking began in Canada early in the 19th Century. Previously, most goods and services had been exchanged by barter: the farmer or trapper exchanged his produce or furs for hardware, dry goods, and other necessities he couldn't produce himself. Business transactions that required cash or credit were handled with whatever foreign coins happened to be in circulation, with limited supplies of paper money of questionable value, and with credit extended through the mercantile system.

Somewhat later, merchants conducted simple banking business themselves, accepting deposits and making payments on order. Some issued notes and coins unofficially.

The first steps to form an actual bank in Canada came in 1772. But the proposed bank did not get off the ground at that time. The first successful operation of a bank began in 1817 when a group of Montreal merchants opened "The Montreal Bank" in a rented house. The new institution (now the Bank of Montreal) was a bank in that it carried on what were considered to be the essential functions of a bank: it accepted deposits, made loans, and issued banknotes, tokens, and coins.

Once started, the system grew quickly. By the time "British North America" became "Canada" in 1867, there were 35 chartered banks in operation. Today, after mergers, amalgamations, the appearance of new banks, and some failures (the last in 1923), there are 11 chartered banks in Canada (see the adjoining list of head offices). They provide one of the most efficient and stable banking systems in the world. They have played a vital role in the commercial development of a nation that is so dependent on international trade.

They must, for instance, be able to finance large-scale exports of basic products, assemble financing packages for capital projects of massive size, and provide trade information and foreign exchange services in major markets.

The Canadian system of branch banking now comprises more than 7,300 branches in 2,000 communities across the country and almost 300 offices overseas. Where Canadian banks are not directly represented, they maintain functional correspondent relationships with more than 5,000 institutions around the world and have sizable staffs of travelling business development representatives constantly making calls.

Chartered bank assets exceed \$150 billion, with about one-third of this in foreign currencies. Growth of foreign currency operations has outstripped that of domestic business for more than ten years.

Ownership of the banks is very substantially in the hands of Canadians. Bank shares are traded on major stock exchanges and about 95% are held by shareholders resident in Canada. The existing federal Bank Act governing the operation of the chartered banks prevents concentration of ownership. Thus no single interest may own more than 10% of the shares of a bank, and the total foreign ownership of a bank may not exceed 25%.

By law the federal Bank Act governing the chartered banks' operations in Canada is revised every ten years. The powers granted to the banks under the existing Bank Act were due to expire June 30, 1977 but have been extended to April 1, 1979, to permit consideration of a re-drafted Bank Act containing important changes.

Despite the close economic ties with the United States, the Canadian banking system has evolved along its own distinctive lines.

Different from U.S. system

The United States has about 14,000 commercial banks, many with no branches and servicing only a single local market. In addition, of course, there are the extremely large U.S. banks which are active internationally — but these are not typical of the American system as a whole.

The relatively small number of Canadian banks serve communities through thousands of branches of all sizes and are frequently the only financial contact between small centres and the larger world. As such they bring to businesses in even the smallest community access to the full resources of institutions with worldwide capacity. Often, the local manager is called upon for information about business opportunities at home and abroad. He in turn is supported by the expertise of specialists in the regional and head offices of the banks.

In recent years, among the five largest banks, decentralization of decision-making has given increasing authority to the local branches and regional offices, so that today, as a rule, only applications for loans of more than \$1 million are referred to head offices.

The chartered banks obviously are by far the largest source of credit of all kinds in Canada, and they provide an enormous variety of loans for practically every purpose. At one end of the spectrum, they participate in large-scale financing for major industrial and commercial projects; at the other, they provide economical personal loans in relatively small amounts for a multitude of individual needs.

Loans are by far the largest category of Canadian dollar assets, accounting for about 70% of these assets. Canadian dollar loans reached a record \$72.3 billion

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outstanding in December 1977, an increase of 372% from ten years earlier.

The banks also invest a substantial proportion of their funds in securities, including Government of Canada, provincial, municipal, and corporate securities.

At present, the Canadian banks (unlike their American counterparts) are not permitted to engage directly in leasing and factoring. But these services are available through affiliates of several banks, and all banks are able to direct clients to the appropriate sources, as necessary. (The proposed new Bank Act would allow Canadian banks to engage directly in leasing and factoring, but formal legislative approval is needed before this becomes a reality.)

The banks are not empowered to engage in trust and fiduciary activities, unlike in most other countries where the two operations can be combined.

The size and national character of the Canadian banks has given Canada, considering its vast geographical territory, one of the most efficient payments systems in the world, handling about 3.5 million cheques a day.

International operations

In international operations, the Canadian banks' pre-eminence is a natural outcome of Canada's historical reliance on foreign trade, which today accounts for more than 25% of gross national product. The extensive branch system of the Canadian banks and their long history of security have been strong supports in their overseas operations, where they have developed a reputation for strength and stability that is far more than in proportion to the size of Canada's population or economy.

The Canadian banks historically have followed the country's trade patterns all over the world — to the Caribbean, Europe, South America, and more recently the Pacific Rim — establishing branches, agencies, representative offices, and affiliates. Now, practically all direct Canadian transactions with other countries — and an increasing amount of offshore trade between third countries — are handled on behalf of their customers directly by offices of the Canadian chartered banks.

They have developed substantial and highly efficient international organizations, providing comprehensive networks of facilities and services relating to foreign trade and financial transactions, deposit-gathering and lending, and the development of new business for Canada through on-the-spot contacts. They also handle a host of complex and specialized

services, including financing and investment facilities and advice on market conditions and plant locations. In particular, the emergence of the multinational corporation as a phenomenon in international business has highlighted the need for large, expertly staffed banks with representation in many parts of the world.

Individual and corporate customers at home and abroad have benefitted from the rapid expansion and increasing sophistication of Canadian bank services, from the stretching of the system's geographic ties, and from the broader capital resource base created by the banks' involvement in Euro-dollar activities and consortia arrangements. The interests of Canadian corporate customers have also been served by the banks' role in facilitating a two-way flow of capital resources.

Among the services provided by the banks for transactions with other countries are:

For exporters

- to appraise and advise and to provide surveys and reports on market conditions, sales prospects, and import and exchange regulations in Canada and abroad;
- to prepare reports and advise on the credit status of buyers and potential buyers in foreign countries;
- to provide liaison between foreign financial assistance corporations;
- to handle commercial letters of credit and give guidance;
- to pay or negotiate drafts drawn under letters of credit on foreign or Canadian banks;

- to collect time and sight drafts drawn by exporters on foreign importers;
- to advance money against drafts for collections, or against drafts drawn under letters of credit in favour of exporters;
- to fulfill orders of exporters in their foreign exchange transactions in the principal foreign currencies both for immediate and future delivery;
- to handle foreign remittances and transfers;
- to provide liaison between federal and provincial government organizations in their various assistance programs for exporters;
- to assist Canadian companies in entering the export business.

For importers

- to counsel and submit reports on market conditions and export and exchange regulations abroad;
- to prepare reports on the reliability and credit standing of sellers abroad;
- to open commercial letters of credit to finance the importation of goods and commodities;
- to sell foreign exchange necessary for payment of imported goods;
- to finance importers' costs for goods between the times of payment and delivery and for storage, processing, sale, and collection of accounts receivable.

For business travellers

- to purchase and sell foreign exchange, and provide travellers' cheques and similar items;
- to supply letters of introduction to banks and other parties at home and abroad.

Table 1

Assets of the Canadian Chartered Banks (millions of dollars)

Dec. 31	Canadian dollar assets	Foreign currency assets	Total assets
1967	25,199	6,470	31,669
1968	28,940	7,806	36,746
1969	31,000	11,632	42,632
1970	33,616	13,691	47,307
1971	39,958	14,469	54,428
1972	46,650	16,572	63,222
1973	56,455	23,298	79,754
1974	68,481	28,534	97,015
1975	77,169	31,209	108,378
1976	88,790	37,614	126,403
1977	102,819	47,658	150,477
1978 (March 31)	106,286	52,928	159,214
Increase 1967-77	308%	637%	375%

Source: Bank of Canada Review

The short-term money market in Canada

by James H. Claydon

A fast-growing and very sophisticated short-term money market has evolved in Canada, featuring a wide range of highly liquid instruments. The market centres itself in Toronto, with regional activity in Montreal, Edmonton, and Vancouver.

A considerable and diverse group of high-quality borrowers ensures a broad choice of vehicles. Major borrowers include federal, provincial, and municipal governments, financial corporations, industrial corporations, and chartered banks. It is generally accepted that money market instruments trade in multiples of \$100,000 in maturities that range from 3 days to 365 days. Most activity is in the 30-90 day range.

The market makers

Investment dealers perform a key market-making function in Canada. They deal both for their own account and on behalf of issuers and investors. Their role is to seek out both, quote rates, and execute transactions that range from \$100,000 to \$50 million. Settlement is negotiable and flexible, but 95% of all transactions are made for same-day delivery. Daily sales volume handled in aggregate by investment dealers averages \$1,500 million. Dealers maintain large inventories of money-market instruments, typically carrying between \$2.5 billion and \$3.5 billion.

This inventory is banked daily in the call-loan and day-loan markets at rates which approximate those for 7-15 day paper. The suppliers of funds to the call-loan market are frequently the same institutions that invest for term in money-market instruments. They include banks, governments, insurance companies, pension funds, industrial corporations, and financial institutions. In fact, the call-loan market represents the entree into the money market and is an integral part of the whole mechanism. Typical money-market investors will have some funds committed to term and some to call loan, depending to a large extent on their internal cash-flow forecast and their assessment of the trend in interest rates over the near term. Collateral for call loans is held with the lender or moninee, but seldom moves outside the money-market centres.

Dealers are very active in the foreign exchange market, arranging hedged U.S.-dollar investments for Canadian investors and hedged Canadian-dollar investments for non-residents. In addition, dealers stand ready to take in U.S. dollars on a fully hedged basis to finance their money-market call-loan operations.

The chartered banks

The Canadian chartered banks, with a

worldwide network of branches and representative offices, accept non-resident short-term deposit liabilities in major foreign currencies as well as in Canadian dollars. The bulk of these foreign deposit liabilities (close to \$8,000 million in recent months) are denominated in U.S. dollars and booked at the head offices of individual banks, frequently with the assistance of the international representative network. In total, the Canadian chartered banks have foreign currency deposit liabilities with foreign banks and other non-residents amounting to the equivalent of Can. \$20 billion. These deposits are re-employed in the worldwide lending and investing activities of the banks. Since Canadian banks are universally considered to be in the top-quality class of international banks, the rates they can attain on their U.S.-Eurodollar term deposits tend to mirror this fact.

The Bank of Canada

The money market in Canada is greatly influenced by the Bank of Canada. The central bank is responsible for monetary policy and for day-to-day activities associated with this mandate. These activities include open-market security operations, transfers of government deposits, and transactions in foreign currency swapped deposits — activities all designed to influence the level of excess reserves in the banking system and the general direction of growth and velocity of money supply.

In addition, the Bank of Canada acts as fiscal agent for the Government of Canada and as manager of the public debt which consists of treasury bills, marketable bonds, and Canada Savings Bonds. The central bank is also instrumental in arranging foreign currency standby credit facilities, an activity which complements its role as agent for the official Exchange Fund Account, for which it buys and sells U.S. dollars to maintain orderly conditions in the currency market.

All this activity is reflected in the weekly financial statistics released by the Bank of Canada. Market participants follow these data closely in an effort to detect shifts in monetary policy, credit conditions, and the trend in interest rates.

The instruments

Virtually all the generally recognized forms of money-market instrument are utilized in the Canadian market, including government treasury bills, municipal tax-anticipation notes, bankers' acceptances, chartered bank bearer term notes (similar to certificates of deposit), and commercial paper. The latter is a

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generic term referring to paper issued by diversified financial corporations, manufacturer-owned auto-finance companies, foreign bank subsidiaries in Canada, industrial corporations, utilities, and grain companies. Approximately 55% of the commercial paper outstanding is accounted for by the first three categories, with the remaining 45% shared between a large number of industrial, utility, and grain-company borrowers.

In terms of quality, *Government of Canada treasury bills* rank as the supreme vehicle. Tendered weekly at auction, the \$11.6 billion outstanding, in maturities from a week to a year, make it the single most actively used money-market instrument. Thirteen investment dealers have been designated as money-market jobbers by the Bank of Canada and have access to the central bank as a lender of last resort against Canada treasury bill collateral. Chartered banks must maintain their secondary liquid reserves in the form of treasury bills or in the form of loans to the jobbers against treasury bill collateral. The treasury bill function is the very core of the money market in Canada, and from treasury bill rates all other rates are determined.

Bankers' acceptances and chartered bank BDNs (bearer deposit notes — which are similar to certificates of deposit) are generally considered to be of equal quality and trade very close to the yield obtainable on Canada treasury bills. Both vehicles are broadly held and actively traded between issue and maturity, usually turning over many times during their relatively brief lifespan. Both bankers' acceptances and chartered bank BDNs carry the names of Canada's major banks, known and respected the world over.

Provincial treasury bills trade in the same yield range as bankers' acceptances. They, like their federal counterparts, are not subject, in the interest they pay to non-residents, to the Canadian withholding tax that applies to corporate short-term paper. The provinces in Canada have a great deal of tax autonomy and are regarded very favourably in world capital markets, where they and their utilities are regular borrowers. The two major U.S. rating agencies assign BAA1 to AA to the provincial securities, and provincial treasury bills rank equally with longer-term provincial securities.

Major municipalities too offer short-term promissory notes exempt from withholding tax. In most instances these notes are sold in anticipation of real property tax revenue and therefore are seasonal features of the market. The borrowers in this market tend to have U.S. ratings ranging from A to AAA and are generally considered very good short-term investments that offer slightly

higher yields balanced by slightly less liquidity.

By far the most diverse area of the Canadian money market is that represented by the issuers of *commercial and finance paper*. These companies number close to 200, of which approximately 150 will be active borrowers at any one time. As might be expected, the size and quality ranges are more pronounced for this group, although issuers are generally among the largest and strongest corporations.

Every borrower in the commercial paper market either files an annual prospectus with the Ontario and Quebec securities commissions or prepares a detailed information memorandum containing annual reports, borrowing by-laws, resolutions, legal opinions and, where necessary, guarantees. These documents form the basis for dealer-participation sponsorship and solicitation. The dealer role is to act as the market-making intermediary in creating the demand for such paper through trading desks and to arrange physical movements of both securities and funds at maturity as well as at initiation.

The role of the rating agencies

Two bond rating agencies have, over the past two years, developed in addition as commercial paper rating agencies and between them rate all the major corporate borrowers using the money market. Their assessments are thorough, unbiased, and widely accepted for their objectivity by North American institutional investors who closely follow the Canadian money market. Both agencies — Dominion Bond Rating Service and Canadian Bond Rating Service — pattern their activities along the lines of Moody's and Standard and Poor's in the United States, applying recognized Canadian accounting principles and techniques in their analysis. A noticeable trend is evolving towards acceptance by a growing number of major institutions of rating classification as the criterion for investment.

The non-resident investor in the Canadian Money Market

Non-resident holdings in the Canadian money market have grown over the past five years from \$200 million in 1972 to \$2.9 billion at the end of 1977 and now account for approximately 10% of the total paper outstanding. In 1977, sales of money-market instruments to non-residents exceeded Can. \$14 billion.

The great bulk of this inflow is on a fully hedged basis. A rather sophisticated and rate-sensitive arbitrage network has

developed to express net yields to investors in their own currency equivalents. The forward premium or discount for U.S. dollars in Canada invariably adjusts the net return on Canadian short-term investments to about 10-30 basis points above those on comparable U.S. short-term investments. This is after making allowance for the 365-day true-yield basis used in Canada compared with the 360-day discount basis used in the United States. Thus, the Canadian paper market is set at the margin of attractiveness for non-resident investors in comparison with U.S. investment alternatives.

The mechanics for participation in the Canadian money market by non-resident investors are quite straightforward. All major money-market jobbers maintain offices abroad, especially in New York and London, and are able to reflect market conditions accurately. The Reuters monitor network is widely used by Canadian jobbers, and this facility enables non-residents all around the world to keep continuously abreast of Canadian money-market rates and special situations.

The foreign-owned company borrowing in the Canadian money market

A growing number of foreign-owned subsidiaries in Canada are turning to the money market as a means of financing inventories and receivables and augmenting working capital. Many foreign-based corporations with high corporate visibility guarantee the commercial paper issued by their Canadian subsidiaries. A much larger number of subsidiaries, including privately owned corporations, utilize the bankers' acceptance market in Canada as a low-cost, convenient source of short-term funds. The present Bank of Canada Act stipulates that bankers' acceptances can be issued only by companies which produce and market goods — and this means, in effect, only companies in manufacturing and resource sectors. Proposed revisions to the Bank of Canada Act would remove this impediment, making companies in any industry eligible to seek funds via bankers' acceptances, subject only to the approval-by-stamping of an accepting bank. If this proposed revision becomes law, the new Bank of Canada Act will allow all forms of corporate enterprise, including wholly owned subsidiaries of foreign companies, to utilize this alternative method of short-term financing at rates which are usually attractive. This will have special appeal to companies operating in the service sectors.

Corporate concentration and performance: recommendations of the Royal Commission

After three years of research, background studies, and public hearings, Canada's Royal Commission on Corporate Concentration recently published its final report. Its recommendations tend to favour policies and measures that would encourage savings, investment, and industrial growth and efficiency. Two of the more interesting recommendations call for the elimination of both the capital gains tax and the corporate income tax. Other recommendations are for changes in such areas as competition policy, banking, boards of directors, disclosure of corporate information, and the social obligations of firms.

The Royal Commission on Corporate Concentration was established in April 1975 by the federal government to consider the nature and role of major concentrations of corporate power in Canada, the social and economic implications of such concentrations, and whether their existence required further safeguards to protect the public interest. The purpose of the Commission, as with all Royal Commissions, is to make recommendations which can be considered by the federal government in future legislation. The recommendations, however, do not necessarily become a part of government policy.

The report is organized into several specific topic areas. This enables the reader to obtain a good overview of the Canadian economy. The following is a brief discussion of some of these topic areas and the conclusions and recommendations made about them.

Corporate size and concentration

The Commission finds that those corporations considered large in Canada are, in general, small in comparison with large corporations elsewhere in the world. It also finds that both aggregate concentration (the proportion of a country's total economic activity accounted for by the largest firms) and industrial concentration (the proportion of the activity in a particular industry accounted for by the largest firms in that industry) are higher in Canada than in other industrial countries. However, aggregate concentration appears to have declined since the beginning of the century.

Canadian plants are not, in general, very

much smaller than elsewhere. But these plants produce a full line of products. Consequently, the plants employ less specialized equipment, have a higher proportion of set-up and down time, and must face high retooling costs. Therefore, concludes the Commission, firms should be encouraged to grow, so that greater rationalization of product lines can occur within their plants. In this way, economies of large-scale production can be realized.

Competition and oligopoly

As a countervailing force to this need for larger firms, Canada requires a competition law that will preserve the advantages of market competition in an oligopolistic economy.

In the Commission's view, some of the merger and monopolization provisions of Canada's proposed competition legislation reach too far. The Commission would prefer a law that deals with anticompetitive actions if and when they occur, rather than a law which operates on the basis of predictions about future actions — that is, on the basis of presuming that certain industrial structures are likely to lead to anticompetitive practices. The report urges that measures be considered to reduce artificial barriers to entry and encourage new competitors — such as measures to improve the availability of debt and equity capital and to facilitate licensing of products and technologies.

The Commission further recommends that frequent reviews of competition policy be carried out to ensure that it matches the industrial policy of the day.

Conglomerates

Canada's first large diversified company was the Canadian Pacific Railway Company which, in the late 1800s, started to expand from its base in railroads to ventures in related industries. However, it was not until after the second World War that other firms began diversification programs, creating what we know today as conglomerates.

The Commission believes that acquisitions by conglomerates have not increased concentration within industries and have not in general decreased competition. Most diversifications by conglomerate firms have been into industries so unconnected to their present operations that they have not been able to take advantage of economies of scale and to realize substantial savings. On the other hand, diversification into unrelated sectors has helped allocate resources from old static industries to

newer, more dynamic ones.

Furthermore, says the Commission, there is no need for any general prohibition against conglomerate mergers. The proposed competition laws in Canada would be able to deal effectively with any competition questions that might arise. However, if there should be other overriding concerns in the public mind, it should be left up to Parliament to decide in the light of the circumstances at the time whether or not a conglomerate merger was against the public interest. No general legislative criteria can be established in advance by which all such mergers can be assessed.

Foreign direct investment

The report notes that the percentage of Canadian industry controlled by foreign interests has levelled off since the early 1970s. Meanwhile, there is evidence to show that foreign firms continue to invest in Canadian industries characterized by both high concentration and high barriers to entry.

The Commission concludes that (1) on the whole, the benefits of foreign direct investment outweigh the costs; (2) the existing mechanisms to deal with foreign direct investment are adequate and need not be changed; and (3) "those administering the Foreign Investment Review Act are conscious of the benefits of foreign investment to Canada and give them adequate consideration."

Taxation

Over the next seven years, the Canadian economy will require an estimated \$460 to \$520 billion to finance projected capital investment requirements. But, notes the report, domestic savings will not be adequate to finance this amount of business investment. As a solution, the report urges that two changes in the basic structure of taxation be considered. The first would be to eliminate the capital gains tax. As a source of revenue it has not been significant, and meanwhile it has acted as a disincentive to business investment and has been a complicated and costly addition to the tax system.

The second change in the tax structure would be in the corporation tax. The Commission suggests that, instead of being taxed as it is earned, corporate income should remain exempt so long as it is employed in the business and should become taxable only after it is paid out in the form of dividends.

By changing these two tax provisions, the Commission contends, funds which would not normally be available for investment purposes will be channelled to meet Canada's future requirements.

Corporate disclosure

The Commission believes that better disclosure of business information is necessary so that the public can make more informed judgments about what business does. It therefore recommends that the kinds of information available to the public be expanded. It recommends also that the confidentiality rules on information filed by very large corporations with governments should be relaxed but that, at the same time, an effort should be made to reduce and simplify requirements for corporate reporting of information to governments and to eliminate duplication of reporting demands.

Corporate influence and the role of business in society

The Commission also looked into the question of the extent to which large corporations can or do manipulate public opinion and public policy. It concluded that representatives of major corporations have ready access to government, but that the extent to which they have influenced government is unclear. The commission does recommend, however, that corporations should disclose the total of their political contributions in their annual reports.

Some public concern had been expressed about conglomerates that have interests in both the print and broadcast media. The Commission recommends that the Canadian Radio-Television and Telecommunications Commission be given the power to prevent broadcast media from acquiring or controlling major print media (the CRTC already has the power to prevent print media from acquiring broadcast media).

As far as social responsibilities of corporations are concerned, the Commission feels that "business should resist both the pressure and temptation to be drawn into assuming responsibility for matters connected only tenuously, if at all, with its prime economic function." However, in the future, "the law will have to act positively to influence decision-making within corporations to ensure that corporate decisions are made in accordance with the desires of society."

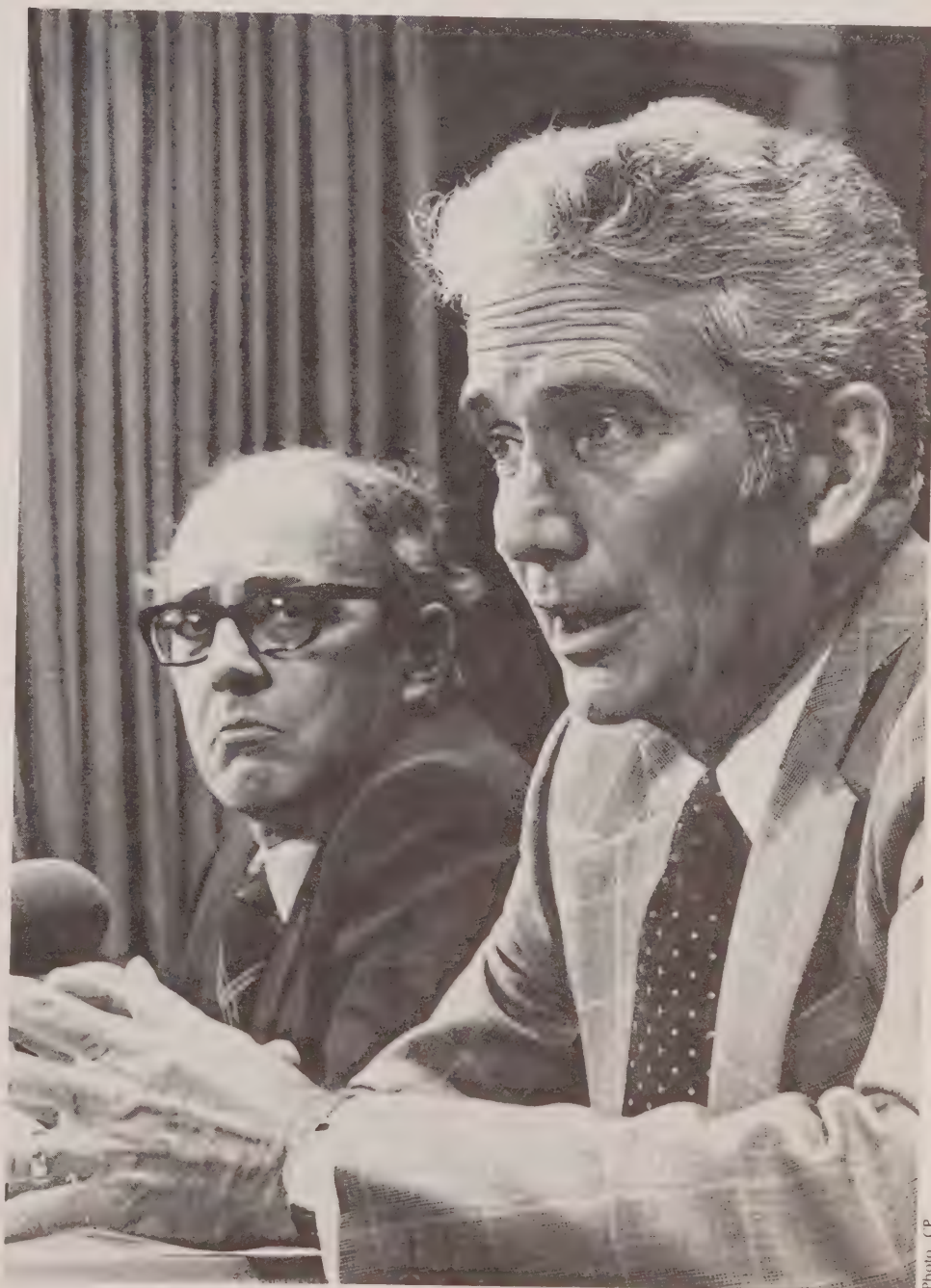
At the end of its report, the Commission notes that Canada can expect increased concentration to occur, chiefly because of international competitive influences. The public must realize that vigilance and the effective use of appropriate instruments of public policy are the best ways of maximizing benefits. The Commission concludes that "no radical changes in the laws governing corporate activity are necessary at this time to protect the public interest."

The concentration of foreign investment in Canada

Since many of the highly concentrated industries in Canada have a high degree of foreign ownership, the Royal Commission on Corporate Concentration devoted a chapter of its final report to the subject of foreign investment.

According to the Commission, the ownership structure of foreign direct investment in Canada has changed significantly in the past generation. For instance, in 1954 non-American

investment represented only 4% of the book value of all foreign investment, but by 1973 this figure had increased to 9%, and all signs indicate that the percentage has continued to rise. The degree of control by American companies appears to have reached its peak during the late 1960s. The subsequent downtrend is expected by the Commission to continue, with the proportion of non-American foreign-controlled investment increasing. This is a trend that appears to be occurring internationally and is, according to the Commission, mainly due to the recent erosion of the comparative advantage inherent in the greater size of American firms and to the rising number of divestitures by American firms.



Robert Dyckerson and Pierre Nadeau, the two members of the Royal Commission on Corporate Concentration at the press conference following the publication of their report.

The Commission notes that, up until the mid-1960s, American firms benefitted from important economies of scale related partly to their larger size. But the size difference and the related advantages have been eroding in the past ten years to such a point that the sales of the world's 100 largest American corporations are now barely higher than the sales of the 100 largest non-American corporations — the average sales of the former being \$5.6 billion and those of the latter \$4.9 billion. The Commission cites several American studies which conclude that the growth of multinational corporations is linked to the growth of their national market base. This, of course, would favour the European multinationals, who have seen substantial growth occur in their home markets. The Commission also refers to the increase in competitive pressure placed upon American subsidiaries by European firms. The Commission's views are in accord with those of other studies concerning the relative size of American companies, which show that the rate of expansion of foreign investment by European companies is greater than that by American companies.

The second important factor which, according to the Commission, favours the relative growth of other-than-American investments in many countries is the number of divestitures by American corporations. One study shows that, around the world, the divestitures of foreign subsidiaries by American corporations was four times as high between 1971 and 1975 as between 1961 and 1965. Meanwhile, a relatively small and declining number of subsidiaries were created between 1971 and 1975. Whereas in 1971 there were 3.3 new investments for each disinvestment, by 1975 the ratio had declined to only 1.4. The Commission reports that most of the divestitures were due to inadequate earnings, rather than to any pressures from host countries.

The patterns of international investment and disinvestment had several repercussions for Canadian industries. According to studies prepared for the Commission, a relatively high proportion of the disinvestments of recent years have occurred in unconcentrated industries and few have taken place in concentrated sectors. This is consistent with another finding of numerous Canadian studies, which show that foreign firms are more likely to invest in concentrated industries. In fact, researchers have identified a "strong direct correlation" between the degree of foreign ownership, the degree of concentration, and the presence of large firms. The degree of foreign ownership is much greater in those industries in which an oligopoly of three or four firms controls a large percentage of total sales. By contrast, the degree of foreign ownership is relatively small in

those sectors where there are many small firms and where no single firm has a significant share of the market.

According to the Commission, changes in recent years in the degrees to which various industries are foreign owned have by no means been haphazard, but rather have been related to the advantages that investments have in oligopolistic industries and the advantage of possessing certain core skills. The Commission notes that "the difficulties new firms face in acquiring these core skills contributed to the high concentration in these industries and the high level of foreign investment." The Commission also observes that foreign subsidiaries in Canada can often be more productive than Canadian-owned companies because of their access to the core skills of the foreign parent. Further along in the discussion of concentration in Canadian industries, the report observes that many of the oligopolistic structures in

Canada had first been developed abroad and then brought to Canada by the direct investments of the firms involved in the oligopoly abroad. The dominant firm in the oligopoly is apt to be the first to invest in Canada — and is soon followed by the others who wish to protect their market share.

Despite the presence in Canada of many oligopolistic industries that have a high percentage of foreign firms, the Commission rejects the inference that foreign direct investment has *increased* the concentration in Canadian industries. For example, no relation was observed between the rate of foreign direct investment and changes in the level of concentration, and meanwhile it can be observed that Canadian industries with a high degree of foreign ownership are no more concentrated than the same industries in other countries where those industries have a lower degree of foreign ownership.

Industrial concentration 1975

Major industries	Percentage of industry controlled by largest firms		Rank of largest Canadian-owned firm in the industry
	Top 4	Top 8	
Tobacco products	88.1	98.9	13
Petroleum and coal products	75.4	88.0	7
Communication (utilities)	72.4	79.6	1
Transport equipment	70.1	75.1	6
Rubber products	63.1	81.0	10
Primary metals	58.3	74.2	1
Storage	56.1	70.6	1
Metal mining	47.4	65.0	1
Public utilities	46.3	61.1	1
Mineral fuels	44.5	64.5	7
Beverages	44.4	65.8	1
Transportation (utilities)	41.4	48.3	1
Electrical products	39.3	51.7	1
Textile mills	36.1	44.3	2
Paper and allied industries	35.0	49.0	1
Machinery	28.8	37.5	2
Other mining	27.4	35.8	5
Non-metallic mineral products	27.2	39.5	3
Chemicals and chemical products	25.5	36.3	6
Wood industries	22.0	27.8	1
Printing, publishing and allied industries	21.9	31.6	1
Food	19.9	29.9	1
Leather products	17.3	28.5	1
Knitting mills	16.2	26.1	2
Metal fabricating	14.2	20.5	1
Miscellaneous manufacturing	13.9	20.3	3
Retail trade	12.9	22.4	1
Furniture industries	12.3	19.3	2
Finance	11.6	21.8	1
Wholesale trade	9.0	13.1	1
Services	8.2	11.2	4
Clothing industries	6.1	9.4	4
Construction	5.9	8.2	3
Agriculture, forestry and fishing	5.2	8.3	1

Source: Statistics Canada

Incentives to industry

The following is a regularly updated list of the major incentives to industry offered by the federal and provincial governments and available to both Canadian and non-Canadian investors. To qualify, companies must be incorporated in Canada.

FEDERAL GOVERNMENT INCENTIVES

Note: a number of programs which are cost-shared and jointly administered by the federal and provincial governments are listed only under **Provincial Government Incentives**.

**Department of Industry,
Trade and Commerce**

Enterprise Development Program (EDP)

The program assists eligible manufacturing and processing firms to become more viable and internationally competitive through grants and loans. The grants are to help firms to develop proposals for project assistance, study market feasibility or productivity improvement, procure industrial design services, and develop or introduce new technology. Loans or loan guarantees assist restructuring or rationalization. Further grants or loans are also available to help firms to meet special problems or to further specific government objectives. **Contact:** *Enterprise Development Board, Department of Industry, Trade and Commerce, 235 Queen St., Ottawa, Ontario, Canada K1A 0H5.*

Small Businesses Loans Act

Guarantees loans up to \$75,000 from approved lenders to proposed or existing businesses whose actual (or estimated) gross revenue is up to \$1 million. **Contact:** *Small Business Loans Administration, Department of Industry, Trade and Commerce, 235 Queen St., Ottawa, Ontario, Canada K1A 0H5.*

Machinery Program

This program provides for remission of import duty on types of machinery not manufactured in Canada, when the importation of such machinery is vital to an enterprise. **Contact:** *Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce, 235 Queen St., Ottawa, Ontario, Canada K1A 0H5.*

Agricultural and Food Products Market Development Program (AGMAP)

Financial assistance to develop domestic and export markets for agriculture and food products. **Contact:** *Program Unit, Agriculture Fisheries and Food Products Division, Department of Industry, Trade and Commerce, 235 Queen St., Ottawa, Ontario, Canada K1A 0H5.*

Other Programs

Financial assistance programs are also available for shipbuilding, defence production, fashion design, grains and oilseeds marketing and for export market development. **Contact:** *Department of Industry, Trade and Commerce, 235 Queen St., Ottawa, Ontario, Canada K1A 0H5.*

National Research Council

Industrial Research Assistance Program (IRAP)

Shares cost of selected research projects. **Contact:** *National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.*

Pilot Industry/Laboratory Program (PILP)

Provides shared-cost research between NRC laboratories and industrial firms. **Contact:** *National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.*

Department of Regional Economic Expansion (DREE)

Regional Development Incentives Program (RDIP)

The program provides grants and loan guarantees to foreign and Canadian firms undertaking ventures in designated regions in all provinces under the Regional Development Incentives Act. Incentives are provided principally to manufacturing or processing operations and loan guarantees are also available to certain new service facilities. The Montreal Special Area designated under the DREE Act is eligible for grants in certain manufacturing or processing sectors. **Contact:** *Industrial Incentives Branch, Department of Regional Economic Expansion, Sir Guy Carleton Building, 161 Laurier Avenue West, Ottawa, Ontario, Canada K1A 0M4.*

Federal Business Development Bank (FBDB)

Provides financial assistance to business, particularly small business, in the form of loans, loan guarantees, equity financing or leasing. Management services are also available to small businesses. **Contact:** *Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.*

PROVINCIAL GOVERNMENTS INCENTIVES

ALBERTA

Alberta Opportunity Company

Provides financing for Alberta manufacturing and service businesses through direct loans or guarantees of loans for fixed assets or working capital when funding is not available from conventional lending institutions. **Contact:** *Alberta Opportunity Company, Box 1860, Ponoka, Alberta, Canada T0C 2H0.*

Canada-Alberta Subsidiary Agreement on Nutritive Processing Assistance

The maximum grant under this program is 35 per cent of the total capital required to build or expand a facility. The grant is restricted to nutritive processing operations in which raw or semi-processed products are physically or chemically altered, processed, or refined or made more marketable as nutritional products for humans, animals, or plants. The grants are available for operations anywhere in Alberta except Edmonton and Calgary. **Contact:** *Executive Director, DREE Program, Agriculture Building, 11th floor, 9718 — 107th St., Edmonton, Alberta, Canada T5K 2C8.*

BRITISH-COLUMBIA

British Columbia Development Corporation

The corporation provides financing in the form of term loans, loan guarantees, performance bonds, deficiency guarantees, leasing of buildings and machinery, and in special cases, equity. While there is no limit on the amount of funds the corporation may provide, in large scale projects it prefers to provide assistance in conjunction with other financial institutions. BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the land development division. BCDC acts as project manager of large capital projects in British Columbia. **Contact:** *British Columbia Development Corporation, 272 Granville Square, 200 Granville St., Vancouver, British Columbia, Canada V6C 1S4.*

Ministry of Economic Development

The business development program provides assistance in marketing British Columbia-manufactured products outside the province by providing financial support to businesses to participate in trade shows and trade missions outside

Canada. It also provides a market development assistance program, a technical assistance program, a small businesses assistance program and a business information service on the availability and source of various forms of financial and other assistance to business. The new business service provides counselling and information about government regulations. **Contact:** *Business and Industrial Development Branch, Ministry of Economic Development, Box 10111, 700 West Georgia St., Vancouver, British Columbia, Canada V7Y 1C6.*

MANITOBA

Manitoba Research Council

Industrial Development Assistance provides shared costs and technical assistance for research and development of new or improved products and processes. The Council's Canadian Food Products Development Centre and Canadian Health Industry Development Centre provide advice, in-plant assistance and laboratory prototype work for food and feed industries and for products and devices in health care respectively. **Contact:** *Manitoba Research Council, 155 Carlton St., 5th floor, Winnipeg, Manitoba, Canada R3C 3H8.*

Manitoba Department of Industry and Commerce

The Feasibility Studies Incentive Program assists manufacturing and processing industries with shared-cost feasibility studies on establishing or expanding manufacturing. The DREE Application Incentives Program provides shared-cost assistance to employ outside consultants in the preparation of applications to the federal government's Department of Regional Economic Expansion programs for the establishment or expansion of manufacturing facilities. The Productivity Improvement Program provides shared-cost assistance to identify problems and obstacles to growth. The Manpower Development Assistance Program provides cost-sharing of manpower development programs. **Contact:** *Department of Industry and Commerce, 155 Carlton St., Winnipeg, Manitoba, Canada R3C 3H8.*

NEW-BRUNSWICK

New Brunswick Industrial Development Board

Provides financial assistance to manufacturers or processors, normally in the form of a loan guarantee or direct loan. Administers a joint federal-provincial interest-free forgivable loan

program oriented to small businesses. **Contact:** *Department of Commerce and Development, P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

New Brunswick Provincial Holdings Limited

Will take an equity position in manufacturing companies locating in New Brunswick. **Contact:** *N.B. Provincial Holdings Ltd., P.O. Box 6000, Centennial Building, Fredericton, New Brunswick, Canada E3B 5H1.*

Research and Productivity Council

Provides technical supporter services for industry in New Brunswick, including engineering and problem solving, industrial research and development, and management consulting, on a cost-recovery basis. **Contact:** *N.B. Research and Productivity Council, College Hill Road, Fredericton, New Brunswick, Canada E3B 5C8.*

NEWFOUNDLAND

Newfoundland and Labrador Development Corporation

This joint federal-provincial corporation provides equity and loan financing up to \$2.5 million for establishing or expanding small and medium-sized businesses. **Contact:** *Newfoundland and Labrador Development Corporation, P.O. Box 9548, 44 Torbay Road, St. John's, Newfoundland, Canada A1A 2Y4.*

NOVA SCOTIA

Industrial Estates Ltd.

Industrial Estates Ltd. is a crown corporation for the development of secondary industry in Nova Scotia. Long-term loans on 20-year first mortgages on 100% of the cost of new land and buildings of secondary manufacturers and up to 60% financing of new machinery with 10 years to repay. Minimum loan financing available under this program is \$150,000. **Contact:** *Industrial Estates Ltd, 5151 George St., 7th floor, Halifax, Nova Scotia, Canada B3J 1M5. Also*

Industrial Development Manager, Industrial Estates Limited, Niederkasseler Kirchweg 95, 4000 Düsseldorf 11, Germany.

Nova Scotia Department of Development

The Nova Scotia Department of Development is responsible for the development of businesses and industries. It offers loans to primary industries, tourism, and fishing through

the Nova Scotia Resources Development Board. The department also has programs of assistance specific to marketing, management development, product design and development and opportunity identification; as well as a rural industry program offering capital grants to businesses wishing to expand, establish or modernize outside Halifax-Dartmouth. An industrial malls program encourages new small businesses and industries with rental and other assistance in the first year of their existence. There are other programs offered by departments of agriculture, lands and forests, tourism, labour, fisheries and education which may be relevant to businesses and industries.

Contact: Nova Scotia Department of Development 5151 George Street, Halifax, Nova Scotia B3J 1M5.

ONTARIO

Ontario Development Corporation

Programs include: industrial mortgages and leasebacks, export support loans, venture capital loans, pollution control equipment loans, loans to small businesses, tourist industry loans, and incentive loans to encourage industries to locate or expand in slow-growth areas of Ontario. **Contact:** Ontario Development Corporation, Mowat Block, 3rd floor, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.

Ontario Industrial Training Program

Assistance for training programs to companies locating in areas where such programs will help improve employment opportunities. **Contact:** Ministry of Colleges and Universities, Industrial Training Branch, Mowat Block, 900 Bay St., Toronto, Ontario, Canada M7A 2E7.

Retail sales tax exemption for production machinery and equipment

Retail sales tax exemption is granted to a manufacturer or producer who purchases machinery and equipment which alters the goods in process as well as a wide variety of mining, logging, waste removal and pollution control equipment and other types of machinery. **Contact:** Ministry of Revenue, Retail Sales Tax Branch, Queen's Park, Toronto, Ontario, Canada M7A 1X9.

PRINCE EDWARD ISLAND

Industrial Enterprises Incorporated

Provides assistance for capital expenditures in the form of first mortgage loans on real estate and/or equipment. Also provides serviced lands and facilities

in industrial parks at attractive rates and flexible terms. **Contact:** Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0.

P.E.I. Department of Industry and Commerce

The Industrial Assistance Program provides assistance in the form of forgivable performance loans to manufacturing and processing businesses. Where the maximum capital expenditure is \$25,000, eligible businesses may receive a maximum forgivable performance loan of \$12,500 or 25% of the total capital cost and up to \$2,000 for each new job created. The Service Sector Assistance Program provides assistance to primary resource industries and/or secondary manufacturers and processors to purchase new, used, or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. For a maximum capital expenditure of \$60,000, the amount of forgivable performance loan would be 25% of the approved capital costs to a maximum of \$30,000 and up to \$2,000 for each new full-time job created. Financing for these programs is on a joint federal-provincial basis. **Contact:** Department of Industry and Commerce, P.O. Box 2000, 180 Kent St., Charlottetown, Prince Edward Island, Canada C1A 7N8.

QUEBEC

Quebec Industrial Development Corporation (QIDC)

QIDC offers financial assistance to manufacturing projects in compliance with the industrial policies of the Quebec Ministry of Industry and Commerce. Long-term financing of capital costs, reduced rates of interest and shared equity in manufacturing projects, are available. These forms of financial assistance are offered to most sectors of industry in Quebec by QIDC together with direct government grants offered by DREE's specially-designed zone in Montreal. **Contact:** Quebec Industrial Development Corporation, 1126, Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.

Quebec Ministry of Industry and Commerce

An industrial financing fund to encourage the development of small plants through fiscal abatement at the accrued rate of 25% annually and a tax rebate to encourage regional industrial development for the general industrial sector is available in addition to QIDC development assistance programs. (See listing above.) The costs of exporting Quebec-manufactured

products are supported by interim financing. The ministry also contributes financially to the organization of trade missions, feasibility studies and market surveys, promotes manufacturing under foreign licenses, conducts regional labour surveys, and studies problems related to industrial productivity, at the request of potential investors. The ministry maintains permanent economic delegations in New York, Boston, Chicago, Dallas, Los Angeles, Toronto, Brussels, Dusseldorf, London, Milan, Paris, and Tokyo. **Contact:** Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned societies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.

SASKATCHEWAN

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial land for lease or sale. **Contact:** Saskatchewan Economic Development Corporation, 1106 Winnipeg St., Regina, Saskatchewan, Canada S4R 6N9.

Department of Industry and Commerce

The department of Industry and Commerce offers a multitude of development programs to assist manufacturers and processors located in the province. These include: the Aid to Trade Program for manufacturers who wish to extend their market areas through promotion; the Product Development Program to help develop new products and special processes, to improve products and to finance tests; the Management Development Program; the Small Business Interest Abatement Program and the Small Industry Development Program. These programs provide assistance up to 50 per cent of approved costs, except for the latter who provide forgivable loans, according to region and population, and abatement grants. **Contact:** Saskatchewan Department of Industry and Commerce, Power Building, 7th floor, Regina Saskatchewan S4P 3V7

Capital investment projects in Canada

I. Minerals

This list shows major capital spending projects now in progress or proposed. Part I covers the minerals industry and is limited to projects costing over \$5 million. Other industries will be covered in future issues of *Foreign Investment REVIEW*. Information on projects is obtained mainly from press reports verified, where necessary, by the companies concerned.

This report was prepared for *Foreign Investment REVIEW* by L.E. Dewis, Analyst with the Capital Expenditures Group, Economic Analysis Branch, Department of Industry, Trade and Commerce.

Canada has an established place in the world as a major producer and exporter of minerals, ranking third as a producer and first as an exporter. Among the more than 60 minerals that Canada produces, it ranks first in the production of asbestos, nickel and zinc; second in molybdenum, potash, silver and uranium; third in gold and fourth in copper and lead.

In 1977, the production value of non-fuel minerals and coal reached \$8.8 billion — an increase of 11% over 1976. Of this amount over half was exported.

The major areas showing notable increases in capital expenditures for 1978 are coal, uranium, asbestos and potash.

A Canada-wide search for uranium is having a substantial impact on the mining scene. There have been several rich uranium discoveries in both Saskatchewan and British Columbia and there are plans for mine expansion and new refineries in Ontario. The outlook for coal is excellent: as many as 10 mines could be opened to produce either metallurgical or thermal coal, with seven projects receiving serious study in British Columbia and three in Alberta. The Ontario government has granted a lease to develop the province's first coal mine, while in Nova Scotia, a new coal mine is being developed and another is being rehabilitated. A new lead-zinc mine is also being developed in that province. In New Brunswick, construction will start this year on a new potash mine and negotiations are underway on a second mine in the same area. In Quebec, several of the asbestos mining companies are undertaking investments for expansion and environmental improvement.

Company and project description	Completion date	Cost (\$ million)	Location
British Columbia			
B.P. Canada Ltd. and B.P. Canadian Holdings New coal mine	1980	400.0	Sukunka area
Cominco Ltd. Expansion and modernization program	1980 and 1985	425.0	Trail and Kimberley
Equity Mining Corporation New silver-copper mine (proposed)	n/a	60.0	Houston area
Kaiser Resources Ltd. Expansion of hydraulic coal mine	1979	40.0	Sparwood
Denison Mines Ltd. Quintette Coal Mine (proposed) Saxon Coal Mine (proposed)	n/a	800.0	Northeast
Shell Canada Resources Ltd. New coal mine	1980	100.0	Lime Creek area
Weldwood of Canada Ltd. and Luscar Ltd. New thermal coal mine	1981	50.0	Campbell River area
Alberta			
Calgary Power Ltd. Extended Highvale Coal Mine-Phase I	1980	50.0	Lake Wabamun
Consolidation Coal Co. of Canada Ltd. Open pit coal mine (proposed) New open pit mine (proposed)	n/a n/a	120.0 11.0	Nordegg Blairmore
E.S.I. Resources Ltd. Uranium recovery plant	n/a	8.5	Calgary
Gregg River Resources Ltd. New open pit coal mine (proposed)	n/a	75.0	Hinton area

Company and project description	Completion date	Cost (\$ million)	Location
Imperial Oil Ltd. New coal mine (proposed)	n/a	80.0	Swan Hills
McIntyre Mines Ltd. Surface and underground coal development (proposed)	n/a	150.0	Smoky River area
Saskatchewan			
Amok Ltd. Uranium mine and mill	1980	133.0	Cluff Lake
Eldorado Nuclear Ltd. Rehabilitation of nuclear refinery	1978	45.0	Radium City
Housing program and mill renovations	1978	17.0	Beaverlodge
Uranerz Canada Ltd. and Saskatchewan Mining Development Co. New uranium mine	1979	100.0	Key Lake
Manitoba & Saskatchewan Coal Company Ltd. Upgrading of coal mine and refinery	1978	50.0	Saskatoon area
Potash Corp. of Saskatchewan Ltd. Cory Mine, expansion	1979	12.2	Saskatoon area
Rocanville Mine, expansion	1979	7.9	
Lanigan Mine, modernization	1981	40.0	
Manitoba			
Hudson Bay Mining & Smelting Co. Ltd. New ore concentrator	1979	26.0	Snow Lake
Sheritt Gordon Mines Ltd. New copper-zinc mine — Ruttan Mine	1978	30.0	Leaf Rapids
Ontario			
Algoma Steel Corporation Ltd. MacLeod iron mine development, Stage IV	1979	39.0	Algoma District
Denison Mines Ltd. Expansion, uranium mine and mill	1979	n/a	Elliot Lake
Eldorado Nuclear Ltd. Uranium refinery improvements	1979	21.0	Port Hope
New uranium refinery (proposed)	1980	100.0	Location under study
Falconbridge Nickel Mines Ltd. New mine development, Craig Mine	1983	n/a	Sudbury Area
Lateral development, Fraser Mine	1979	n/a	
Smelter environmental improvement project, including new sulphuric acid plant	1979	95.0	
Inco Ltd. Major mining development projects: Machine repair complex	1979	29.0	Sudbury area
Development, Creighton Mine, including new ventilation shaft	1980	27.0	
Development of Levack East Mine	1983	56.0	
Onakawana Development Ltd. New coal mine	1978	100.0	Moosonee area
Rio Algom Ltd. Expansion of Quirke uranium mine and mill	1978	76.0	Elliot Lake
Reactivation and expansion, Panel mine and mill	1980	100.0	
Texasgulf Canada Ltd. Mine and mill expansion, Kidd Creek copper-zinc-silver mine	1979	139.0	Timmins area
New copper smelter and refinery	1980	280.0	

Company and project description	Completion date	Cost (\$million)	Location
Quebec			
Alcan Aluminium Ltd. New aluminum smelter	1981	200.0	La Baie
Asbestos Corporation Ltd. Environmental equipment	1978	30.0	Thetford Mines
Bell Asbestos Mines Ltd. Expansion	1978-82	14.0	Thetford Mines
Canadian Johns-Manville Company Ltd. Expansion, asbestos mine and mill	1978	77.0	Asbestos
Carey-Canadian Mines, Ltd. Environmental improvement, asbestos mine	1978	11.0	Broughton Township
Falconbridge Copper Ltd. Corbet Mine development	1979	22.0	Noranda
Orchan Mines Ltd. Development of zinc-copper deposit	1978	10.0	Matagami area
SOQUEM New salt mine development (proposed)	n/a	45.0	Magdalen Islands
Atlantic provinces			
Brunswick Mining & Smelting Corp. Ltd. Zinc-lead mine development (proposed)	1980	53.0	Belledune Point, N.B.
Brunswick Tin Mines Ltd. New tin mine	1979-80	35.0	Mount Pleasant, N.B.
Cape Breton Development Corporation New coal mine	1978	100.0	Donkin, N.S.
Rehabilitation, No. 26 Colliery (proposed)	1983	100.0	Glance Bay, N.S.
Coal transport, shipping, storage (proposed)	1984	65.0	Cape Breton, N.S.
Imperial Oil Ltd. New lead-zinc mine	1979	27.0	Gay's River, N.S.
International Minerals & Chemical Corporation (Canada) Ltd. New potash mine (proposed)	1982	n/a	Sussex, N.B.
Potash Company of America Potash mine and processing plant	1981	106.0	Sussex, N.B.
Northwest Territories			
Canada Tungsten Mining Corp. Ltd. Mill expansion	1979	10.0	Tungsten

1978-1979, 1980-1981, 1982-1983

Book list

International business

The Complete Book of International Investing: How to Buy Foreign Securities and Who's Who on the International Scene

Esslen, Rainer
New York: McGraw-Hill Book Company, 1977

A description of the stock and bond markets in 23 countries outside the United States, and of the gold and gold shares markets, the Eurobond market and offshore tax havens. Market information includes the operations of stock exchanges, bond and new issues markets; banks, brokers and investment funds; tax policies; and the special characteristics of each market.

Fair Trading in Europe

Hermann, A.H. and Colin Jones
London: Kluwer-Harrap Handbooks, 1977

A handbook on the anti-trust and consumer protection laws of the European Economic Community, the nine EEC member states and the other major West European nations.

Racing the Multinationals: A sourcebook on U.S.-based Enterprises

Turhan, Joan P., William H. Davidson and Mahan Suri
Cambridge, Mass.: Ballinger Publishing Company, 1978

A book of statistical data that can be used to trace the growth and spread overseas of several hundred U.S. multinationals. Includes data on employment, sales, assets, exports and other activities of the companies' foreign affiliates. Part of the Multinational Enterprise Project of Harvard Graduate School of Business.

Worker Self-Management in Industry: The Western European Experience

Marson, G. David, editor
New York: Praeger Publishers, 1977

Political science specialists examine the current state of industrial democracy, or worker participation in management, in West Germany, Sweden, Britain, France and Italy with a view to determining whether it represents a transition or an alternative to full worker self-management.

International Business — 1977: A Selection of Current Readings

Penley, Donald S., Zahir Ahmed Quraeshi and Mushtaq Luqmani, editors

East Lansing, Michigan: Michigan State University, 1977

A compendium of articles published in 1975-76 that are of interest to business. Topics include world markets and resources, trade and investment policy, international finance and accounting and multinational operations and environment.

Project Feasibility Analysis: A Guide to Profitable New Ventures

Clifton, David S., Jr. and David E. Fyffe
New York: Wiley-Interscience, 1977

A manual for executives on the preparation of a new venture feasibility study and investment proposal, including market, technical and financial analysis.

Canada: Business, Investment, Government Policy

Foreign Investment in Canadian Real Estate

North, Lincoln W.
Winnipeg: Appraisal Institute of Canada, 1977

A description of tax considerations and legislation — federal, provincial and municipal — affecting investments in real estate by aliens and non-residents.

Problems in Canadian Marketing

Thompson, Donald W., editor
Chicago: American Marketing Association, 1977

Papers, presented at the second Triennial Canadian Marketing Workshop in 1975, describe how cultural, demographic and political factors make the Canadian market different from the American.

Steering a Course to Excellence: A Study of the Canadian Offshore Oil and Gas Service Industries

Pallister Resource Management Limited
Ottawa: National Research Council of Canada, 1977

Reports on opportunities for development of the Canadian marine services industry and identifies the need for new technology if the industry is to be viable.

The Canadian-United States Tariff and Canadian Industry: A Multi-Sectoral Analysis

Williams, James R.
Toronto: University of Toronto Press, 1978

An examination of the effect of the Canadian and U.S. tariffs on Canadian industry and a theoretical and empirical analysis of the adjustment process that would occur in free trade.

The Money Market in Canada How it works . . . the Arrangements, Practices and Instruments

Sarpkaya, S.
Toronto: S. Sarpkaya, 23 Addison Crescent, Don Mills, Ontario, 1977

A monograph about the short-term money market, intended for businessmen and students. It describes market operations and instruments in Canada (including a comparison with U.S. and U.K. markets), the market participants and tax aspects of money market transactions.

Review of the North American Automotive Industry Automotive Task Force

Ottawa: Department of Industry, Trade and Commerce, 1977

The Canadian part of a Canada-United States study of the impact of changing economic conditions and new technological requirements on the North American automotive industry. It covers the motor vehicle manufacturing industry in North America, the automotive parts industry in Canada and prospects of offshore motor vehicle manufacturers in North America.

Canadian Directorship Practices: A Critical Self-Examination

Peterson, Susan assisted by Morris Heath
Ottawa: The Conference Board in Canada, 1977
Canadian Studies No. 48

An examination of the views of 50 'outside' directors of large public companies about the composition, selection and role of corporate boards of directors in Canada, including a section specifically concerned with the effectiveness of boards of foreign-controlled subsidiaries.

Market Research Handbook, 1977-78 Statistics Canada

Ottawa: Statistics Canada, 1978
Catalogue No. 62-224

This handbook contains a broad range of Canadian marketing data. It includes economic indicators; federal, provincial and municipal revenue, expenditure and employment; merchandising and services data; population characteristics, personal income and expenditure; housing, motor vehicles, household facilities and equipment.

All these publications are available from the publisher or authorized agents. Please do not order them from the Foreign Investment Review Agency.

Statistical tables

QUARTERLY FIGURES

TABLE 1 — SUMMARY

REVIEWABLE ACQUISITION CASES						
	1977				1978	
	first quarter	second quarter	third quarter	fourth quarter	first quarter	second quarter
Total	41	60	80	80	79	97
Industry						
Primary	3	2	11	4	5	10
Manufacturing	16	27	29	36	33	52
Construction and services	22	31	40	40	41	35
Country of control						
United States	25	39	55	52	62	65
United Kingdom	10	10	9	11	8	13
Other Europe	6	5	16	14	7	14
All other	—	6	—	3	2	5
Value of assets (\$000,000)	115.8	118.1	460.9	384.7	480.1	1,122.2

REVIEWABLE NEW BUSINESS CASES

	1977				1978	
	first quarter	second quarter	third quarter	fourth quarter	first quarter	second quarter
Total	62	93	86	87	67	78
Industry						
Primary	3	6	8	5	8	5
Manufacturing	17	24	29	24	25	23
Construction and services	42	63	49	58	34	50
Country of control						
United States	35	48	50	51	43	49
United Kingdom	5	11	6	8	4	6
Other Europe	15	24	23	23	16	17
All other	7	10	7	5	4	6
Planned investment (\$000,000)	43.2	51.7	28.6	678.9	37.9	90.6

ANNUAL FIGURES

TABLE 2 — OUTCOME OR STATUS

REVIEWABLE ACQUISITION CASES						
	1974†	1975	1976	1977	1977 six months	1978 six months
Reviewable new cases	102	166	171	261	101	176
Carryover from previous period	—	52	54	65	65	73
Total of above	102	218	225	326	166	249
Total resolved	50	164	160	253	134	177
Allowed	33	116	124	231	121	153
Disallowed	8	21	19	12	7	11
Withdrawn	9	27	17	10	6	13
Carried over to next period	52	54	65	73	32	72
Allowed cases as percent of resolved	66%	71%	78%	91%	90%	86%
Value of assets (\$000,000)	479	1,069.8	1,069	1,144.7	299	1,602.3

REVIEWABLE NEW BUSINESS CASES					
	1975*	1976	1977	1977 six months	1978 six months
Reviewable new cases	6	196	328	155	145
Carryover from previous period	—	6	58	58	52
Total of above	6	202	386	213	197
Total resolved	—	144	334	178	145
Allowed	—	115	297	154	118
Disallowed	—	9	12	12	14
Withdrawn	—	20	25	12	13
Carried over to next period	6	58	52	35	52
Allowed cases as percent of resolved	—	80%	89%	87%	81%
Planned investment (\$000,000)	4.7	324.3	802.5	95	128.6

† Provisions for review of acquisitions came into force April 9, 1974.

* Provisions for review of new businesses' came into force October 15, 1975.

TABLE 3 — COUNTRY OF CONTROL

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Total	102	166	171	261
United States	61	116	109	171
United Kingdom	21	15	23	40
Other Europe	15	27	34	41
Belgium	1	2	1	2
Denmark	—	—	—	2
France	3	6	6	6
Germany, West	5	2	10	15
Italy	—	2	1	3
Liechtenstein	2	2	—	—
Luxembourg	—	—	3	—
Netherlands	—	5	—	4
Norway	—	1	—	—
Sweden	—	2	9	2
Switzerland	4	5	4	7
All other	5	8	5	9
Australia	2	1	—	1
Bermuda	—	2	1	—
Japan	2	2	3	3
Others	1	3	1	5
Allowed cases as percent of resolved	%	%	%	%
United States	65	77	73	91
United Kingdom	70	79	82	95
Other Europe	71	50	86	90
All other	50	30	100	80

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Total	6	196	328
United States	4	90	184
United Kingdom	—	22	30
Other Europe	1	63	85
Belgium	—	1	—
Denmark	—	5	6
Finland	—	1	1
France	—	9	17
Germany, West	—	22	26
Greece	—	—	1
Italy	1	9	10
Liechtenstein	—	2	—
Monaco	—	—	1
Netherlands	—	2	3
Norway	—	—	3
Spain	—	1	—
Sweden	—	3	9
Switzerland	—	8	8
All other	1	21	29
Australia	—	2	3
Hong Kong	—	3	3
India	—	3	1
Japan	—	4	10
Others	1	9	12
Allowed cases as percent of resolved	%	%	%
United States	—	73	88
United Kingdom	—	93	82
Other Europe	—	80	95
All other	—	91	81

* Provisions for review of new businesses came into force October 15, 1975.

TABLE 4 — INDUSTRIAL SECTOR

REVIEWABLE ACQUISITION CASES

	1974†	1975	1976	1977
Total	102	166	171	261
Primary	15	18	15	20
Agriculture	2	—	2	3
Forestry	3	1	—	1
Fishing and trapping	—	1	—	1
Mines, quarries, oil wells	10	16	13	15
Manufacturing	47	82	93	108
Food and beverage	5	10	9	15
Tobacco products	1	1	—	—
Rubber and plastic products	2	2	3	6
Leather	1	1	1	—
Textiles	2	—	2	4
Knitting mills	1	1	—	1
Clothing	—	2	1	—
Wood	5	6	2	5
Furniture and fixture	—	2	4	2
Paper and allied	1	2	1	5
Printing, publishing, and allied	—	3	1	2
Primary metal	—	3	7	2
Metal fabrication	2	6	12	10
Machinery	5	11	4	9
Transportation equipment	8	6	3	5
Electrical products	1	9	11	12
Non metallic mineral products	8	3	9	5
Petroleum and coal products	—	—	2	1
Chemical	3	11	15	10
Miscellaneous	2	3	6	14
Construction and services	40	66	63	133
Construction	2	2	2	3
Transportation, communication, utilities	6	6	9	10
Trade	18	37	38	72
Finance, insurance, real estate	10	14	8	15
Community, business, personal services	4	7	6	33

† Provisions for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

	1975*	1976	1977
Total	6	196	328
Primary	—	12	22
Agriculture	—	2	5
Forestry	—	—	2
Fishing and trapping	—	—	1
Mines, quarries, oil wells	—	10	14
Manufacturing	2	67	94
Food and beverage	—	3	7
Tobacco products	—	—	—
Rubber and plastic products	—	4	4
Leather	—	—	1
Textiles	—	2	4
Knitting mills	—	—	2
Clothing	—	2	3
Wood	—	2	2
Furniture and fixture	1	2	1
Paper and allied	—	1	2
Printing, publishing, and allied	—	—	—
Primary metal	—	5	6
Metal fabrication	1	10	13
Machinery	—	5	13
Transportation equipment	—	1	6
Electrical products	—	7	5
Non metallic mineral products	—	3	5
Petroleum and coal products	—	—	—
Chemical	—	6	3
Miscellaneous	—	14	17
Construction and services	4	117	212
Construction	—	4	4
Transportation, communication, utilities	1	10	5
Trade	1	68	133
Finance, insurance, real estate	1	10	16
Community, business, personal services	1	25	54

* Provisions for review of new businesses came into force October 15, 1975.

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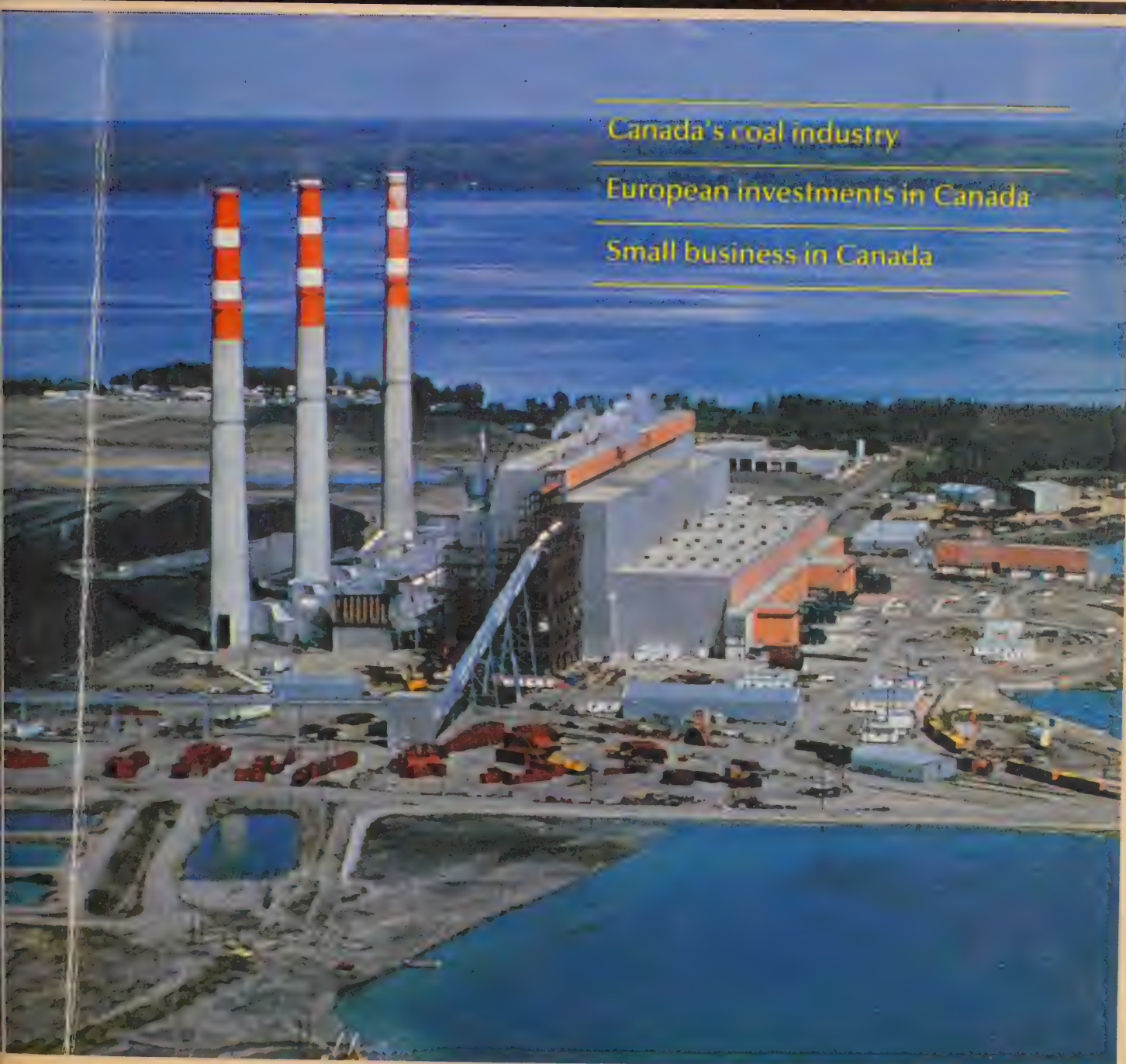
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A journal on
investment conditions in

CANADA

Spring 1979 Vol. 2, No. 2



Canada's coal industry

European investments in Canada

Small business in Canada

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*Erratum for the last issue: Cover showed
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Industrial Strategy

The Prime Minister of Canada, Pierre Elliot Trudeau, announced in November the creation of the Board of Economic Development Ministers and the nomination of its first president, Mr. Robert K. Andras. The Prime Minister said that the creation of this new portfolio represented a significant change in the organization of the Cabinet and had as its objective to concentrate and consolidate efforts to encourage economic development in Canada. This step followed last summer's announced government spending cuts and re-ordering of priorities the stated objective of which was to stimulate industrial growth. The creation of this new economic portfolio, the high status it has been given, and the establishment of a ministerial committee were all steps aimed at coordinating existing and forthcoming economic policies developed by different departments, as well as improving the performance of their industrial programs and services. The first task of the Board was to ensure the successful conclusion of the consultation with the provincial governments and representatives of business and labour, which began in February.

At their February 1978 conference the federal and provincial first ministers concluded that it was time that Canada take a hard look at its industry and evaluate its strengths and weaknesses in order to improve its international competitiveness and productivity. Most significant was the first ministers' agreement to "seek out the active involvement of the private sector (business and labour) in federal-provincial discussions on specific development programs tailored to the . . . requirements of each of the manufacturing sectors." As a result, task force committees were established for each of the 23 industry sectors identified (see box).

This consultative effort, under government auspices, was an historical achievement in that it was the first time that business and labour worked jointly on major economic problems and developed specific recommendations. Though there were some disagreements, business and labour found themselves agreeing on more fundamental issues than previously thought possible.

By July 1978 all 23 committees had submitted their reports and a Second Tier Committee, composed of 12 members representing government, business and labour, was established to identify the

issues which transcended all the reports. By October the Second Tier Committee had submitted its report in which nine such issues were identified. They were the following: trade and multilateral trade negotiations; manpower and labour relations; taxation, research and development; energy; transportation costs; regional development; government purchasing; and the rationalization of Canadian industry. Among other things, the Second Tier Committee recommended:

- that the formation of consortia be encouraged to profit from export opportunities;
- that manpower funding should be redirected to "on the job" training;
- that corporate taxation be evaluated with international competitiveness in mind;
- that government R & D assistance be in the form of tax measures (write-offs and tax credits) or shared-cost grant programs; and
- that industrial rationalization only be undertaken after considering its effect on employment, industrial efficiency, research and development, balance of payments and Canadian ownership.

Capital spending forecast

Business capital expenditure in Canada is likely to increase substantially over the next few years, according to two recent surveys of investment intentions.

The first survey, which was carried out by the Canadian Department of Industry, Trade and Commerce, indicates that the 300 largest firms in Canada will spend almost \$22 billion on plant and equipment in 1979. This would be an increase of about \$3 billion over investments forecast for 1978. The 300 firms in the survey account for 60 percent of non-agricultural business outlays in Canada.

The manufacturing sector will show the greatest increase (22 percent) in 1979, a development which is a departure from the recent trend where the greatest investment increases occurred in major energy projects. Within the manufacturing sector, the transportation equipment industry will show the single largest investment increase

SECTORS COVERED BY THE TASK FORCE COMMITTEE REPORTS

Industry

Aerospace
Automotive
Cement and Concrete
Commercial Printing
Construction
Electrical
Electronics
Fertilizer
Food and Beverage
Footwear
Forest Products
Furniture
Machinery
Non-ferrous Metals
Ocean
Petrochemicals
Plastics Processing
Primary Iron and Steel
Processed Fruit and Vegetable
Shipbuilding and Repair
Textile and Clothing
Tourism
Urban Transportation

as a result of the establishment of a new Ford plant in Windsor, Ontario. Capital spending in the mining industry, which experienced considerable problems last year, is also expected to improve significantly in 1979, with investment increasing by 20 percent.

The survey shows that foreign-controlled companies in Canada will increase their capital expenditure by 18.5 percent this year. That finding is confirmed by another survey carried out by the U.S. Department of Commerce which indicates that American corporations plan considerable increases in their investments in Canada. The authors of that survey expect U.S.-controlled firms to invest \$7.5 billion (U.S.\$) in Canada, which is an increase of \$1.3 billion over last year. This 22-percent increase in U.S. investment in Canada is greater than the projected rate of increase in their total investments abroad (16 percent). The greatest increase (25 percent) should occur in the manufacturing and petroleum sectors. Investments in those

two sectors will reach \$2 billion and \$3.8 billion, respectively. The chemical, machinery and transportation equipment industries will show the largest increases. Somewhat smaller increases will occur in the iron ore and potash industries.

The Canadian survey shows that Canadian firms will be increasing their investments more at home than abroad. Projected foreign investments by Canadian firms are expected to rise by 9 percent, while at home they should increase by 16 percent. According to various analysts, this development is attributable to a number of factors. One is the depreciation of the Canadian dollar which has resulted in increased demand for Canadian products. Other factors are the remarkable rise in profits in 1978 and the increased plant capacity utilization. For example, the food industry, which showed approximately a 60-percent growth in profits, will invest about \$350 million; this represents an increase of 40 percent. The pulp and paper industry, which benefited considerably from the depreciated dollar, will invest more than \$1 billion this year.

Expected increases in capital spending

are confirmed by yet another survey of intentions carried out by the Conference Board in Canada. The survey showed that senior business executives are generally planning higher investment expenditures in the short term.

Canada's Labour-Cost Ranking Improves

From 1970 to 1978, Canada considerably improved its ranking among 14 industrialized countries from second to eighth in terms of industrial labour costs per hour. The analysis leading to this conclusion was prepared by Informetrica, an Ottawa-based economic research firm. The author took into account exchange rates as well as wage rates. Though the analysis is of 1977 data, a projection suggests that the order of ranking will be the same for 1978.

The study showed that in 1970 labour costs in the United States were the highest among the 14 countries, exceeding those of Sweden by 40 percent. Canada ranked second that year with labour costs about 23

percent below those of the United States and 15 percent above those of Sweden. Since then, however, the situation has changed considerably. By 1977, for example, the declining value of currencies and other factors led to the United States dropping to seventh place and Canada, eighth. That same year Swedish labour costs were 20 percent greater than those of the United States and 25 percent greater than Canada's.

The table below provides the relevant details of this study.

Ontario repeals its Land Speculation Tax Act

The Ontario Government has repealed its Land Speculation Tax Act which had been in operation since 1974. All land dispositions registered since October 24, 1978 are no longer subject to the Act. Statutory liens were also eliminated on January 1, 1979. From that date, liens under the Land Speculation Tax Act, other than those registered on title, were abolished.

Labour Costs per Hour for Industrial Workers in 14 Countries in Canadian Currency, 1970-78

1970			1977			1978*		
	\$Can.	Index Can.=100		\$Can.	Index Can.=100		\$Can.	Index Can.=100
United States	4.43	122	Sweden	9.74	124	Sweden	11.11	129
Canada	3.62	100	Norway	9.27	118	Belgium	11.11	129
Sweden	3.14	87	Belgium	8.79	112	Netherlands	11.11	129
Norway	2.60	71	Netherlands	8.79	112	Norway	10.86	126
W. Germany	2.54	70	Denmark	8.56	109	W. Germany	10.86	126
Denmark	2.47	68	W. Germany	8.56	109	Denmark	10.61	123
Netherlands	2.22	61	United States	8.08	103	United States	9.38	109
Belgium	2.18	60	Canada	7.84	100	Canada	8.64	100
Italy	1.95	54	Austria	6.18	79	Austria	8.14	94
France	1.81	50	Finland	5.94	76	Italy	7.40	86
Britain	1.75	48	Italy	5.94	76	Japan	6.91	80
Finland	1.65	46	France	5.70	73	France	6.66	77
Austria	1.61	44	Japan	4.75	61	Finland	6.42	74
Japan	1.15	32	Britain	3.80	48	Britain	4.94	57

*Projection based on 1977 data.

An introduction to Canada's coal industry

by Alan Darisse

Coal is one of Canada's most promising and interesting resource industries. Above all it is very complex with the various types of coal being subject to different economic forces and serving different markets. Due to space limitations in an article such as this, the industry will be presented in only its most rudimentary breakdown; that is, the elementary distinction between the metallurgical and thermal coal industries. In this way, it is hoped that the reader will have a fairly good, albeit general, knowledge of the history, situation and prospects of this important Canadian resource industry.

Historical profile of Canada's coal industry

Until the late 1940s, coal was Canada's primary energy source used for space heating, locomotive fuel, steel-making and, to a lesser extent, electricity generation. Coal consumption rose steadily until 1948, when it peaked at 42.4 million tonnes. Canadian coal production was situated in the far eastern and western provinces with production in the West being used mainly as locomotive fuel. In 1948, Canadian coal production amounted to some 17 million tonnes. Remaining Canadian requirements were satisfied by imports from the United States, which primarily served central Canadian markets.

The 1950s, however, were dismal years for coal in this country. Massive discoveries of oil and natural gas in Western Canada and the availability of relatively cheap imported oil led to coal losing traditional markets. Canadian coal production suffered a severe blow when the railways switched to diesel fuel. By 1961 coal consumption had dropped to 19.4 million tonnes and Canadian coal production to about 10 million tonnes.

After several years of relative stagnation in the late 1950s and early 1960s, a number of factors combined to give the coal industry new life and hope. These included a growing market for thermal coal in electricity generation and the development of export markets for metallurgical coal.

Since the mid-1960s, the use of thermal coal for electricity generation expanded rapidly in Alberta, Saskatchewan and Ontario. The expansion in Western Canada was based on minesite electricity generating plants, whereas, in Ontario, it was based on imports. Over the period 1965-77, consumption of coal for electricity generation increased by 15.4 million tonnes to 22.4 million tonnes. Imports satisfied about 40 percent of total requirements in 1977.

The metallurgical coal industry also grew considerably during the 1960s and early

1970s. Unlike thermal coal, however, its rise was based on export markets, principally Japan. The federal government helped the industry to develop that market for its coking coal. For a brief period ending in 1971, the government subsidized freight costs on shipments from Alberta and British Columbia mine sites to tidewater. With the strength of the Japanese steel industry and its policy of diversifying its supply sources, Canada's metallurgical coal exports rose sharply in the early 1970s. By 1977, metallurgical coal production in Canada reached 13 million tonnes. It should be noted that Canadian metallurgical coal did not serve the growing Ontario steel industry because transportation costs made it uncompetitive with the imported coal, which the steel industry traditionally relied on.

The whole coal picture in Canada has substantially changed in the last 30 years. Coal is now primarily consumed for electricity generation and steel-making. It is no longer used as a transportation fuel, and is employed only to a limited extent for space heating. By 1977, total coal consumption in Canada was 31.0 million tonnes, up some 12 million tonnes from 1961 levels. Imports continue to play an important role, accounting for 50 percent of total coal consumption in 1977 and satisfying nearly all of central Canada's requirements.

Canadian coal production has undergone even more substantive changes. As the Eastern provinces declined in prominence as coal producers, the Western provinces became, in terms of both resources (Tables 1 and 2) and production (Table 3), the most important region and Alberta, the single most important province. Canada is now a principal exporter of metallurgical coal. Furthermore, production of thermal coal for electricity generation has increased substantially. In 1977, total coal production amounted to 28.1 million tonnes; sales were \$670 million. Of this latter amount, over 90 percent was attributable to export sales of metallurgical coal.

Alan Darisse is editor of the Foreign Investment Review. He wishes to thank Scott Houston of the Economic and Policy Analysis Sector, Energy, Mines and Resources Canada, for his invaluable assistance in preparing this article.

Canada: Principal Coal Regions and Coal Ranks By Province

Source: Information from EMR, 1976
Assessment of Canada's Coal
Resources and Reserves, 1977.



Key influences on the structure of Canada's coal industry

Historically, Canadian coal producers have not supplied the central Canadian market. This situation is due to the following factors: 1) transportation costs have made Western coal uncompetitive; 2) U.S. thermal coal has had a superior heating value; 3) both Ontario Hydro and the province's steel industry have "captive" mines in the United States; and 4) until 1978, Ontario lacked the necessary bulk-handling infrastructure for receiving the Western Canadian product. This situation was considerably improved in 1978 by opening the Thunder Bay bulk-handling terminal in northwestern Ontario. The terminal will permit Western

thermal and metallurgical coal to reach the Ontario market. Other factors which might lead to further penetration of the Ontario market by Western producers are the environmental benefits of the low-sulphur content in Western coal and the possibility of major Ontario consumers diversifying their supply sources. In fact, Ontario Hydro already has contracts with three Western Canadian mines for an annual delivery of 3.5 million tonnes of thermal bituminous and low-rank coals.

Transportation is an important consideration for Canadian coal exporters. Canada must compete not only with the United States but with other Pacific Rim countries such as Australia, which have certain geographical advantages. For example, Canadian coal must travel an

average of 700 miles to reach port on the coast of British Columbia, whereas Australian coal only travels about 100 miles to reach its port. This creates significant cost disadvantages for Canadian exporters. Given the soft world steel market and its cooling effect on Japanese demand for metallurgical coal, transportation will be a key to Canada's ability to retain its share of that market. It will also be an important factor in Canada's ability to take advantage of opportunities for thermal coal exports which are expected to open up over the next few years.

Another fundamental economic consideration for thermal coal is its price relative to that of other energy sources, principally oil. The availability of cheap imported and domestic oil was one of the

root causes for the thermal coal industry's decline in the 1950s. Coal's competitive position as a fuel source has improved considerably, however, as a result of actions taken by OPEC in 1973, which caused a quadrupling of oil prices. This led in some cases to the replacement of coal for oil in electricity generation and made other uses, such as coal gasification and liquefaction, more economically attractive.

Prospects for the coal industry

As pointed out earlier, there is no such thing as the coal industry *per se*. The rather rudimentary division of the industry between metallurgical and thermal coal, each with its own history, means of production and markets, serves to show that this resource industry is no monolith. Consequently, the prospects for metallurgical and thermal coal are different, not being subject to the same production or market factors.

The outlook for metallurgical coal is tied to that of the international steel market and Japan's steel industry in particular. The prospects are not encouraging. For several years the Japanese have been making increasingly pessimistic steel output forecasts. The world steel industry's outlook offers little or no hope of any significant growth in the foreseeable future. Therefore, Canada's metallurgical coal producers and exporters seem destined for some lean years, unless prospects in world steel markets improve markedly.

The story is quite different for thermal coal. Authorities at the Department of Energy, Mines and Resources have forecast a significant long-term increase in demand for thermal coal, particularly low-rank Prairie coals. Most of this demand will be for minesite generation of electricity. By the late 1980s, however, significant amounts could be needed for steam-raising in tar sand and heavy oil processing. In addition, coal could be required as a feedstock for synthetic fuel and petrochemical production as the availability of conventional oil diminishes. Most of this increased demand for thermal coal will be in Western Canada. Production rates of 60.0 million tonnes per year are anticipated by 1990. Coal, however, is not expected to play as important a role in Ontario's energy picture. Ontario Hydro planners have already stated their view that the economics of coal relative to nuclear energy dictates that the best future mix of generating units would be one coal-fired unit for every two nuclear ones.

Though thermal coal producers will have to deal with the longstanding problems of distance and transportation costs, some export opportunities might be opening up in Japan, other Far Eastern countries and Europe. Japan, for example, has been seriously studying the use of thermal coal for electricity generation and has a couple of noteworthy projects that could lead to

Table 1
Recoverable Coal^a in Canada - 1976
(millions of tonnes of "raw coal")*

Province and area	Recoverable coal	
	Coking ^b	Thermal ^b
Nova Scotia		
Sydney	48.6	33.3
Other	0	0
Sub total	48.6	33.3
New Brunswick		
Minto	0	17.1
Other	0	13.5
Sub total	0	30.6
Ontario	0	N/A
Saskatchewan	0	1,706.4
Alberta		
Plains	0	1,919.7
Outer Foothills	0	N/A
Inner Foothills	204.3	N/A
Sub total	204.3	1,919.7
British Columbia		
Southeastern	392.4	N/A
Northeastern	0	0
Other	N/A	1,002.6
Sub total	392.4	1,002.6
Canada total	645.3	4,692.6

Table 2
Quantity of Coal Resources in Canada — (1976 Estimates)
(millions of tonnes of coal in place)*

Province and area	Resources of immediate interest		
	Measured ^a	Indicated ^a	Inferred
Nova Scotia			
Sydney	214.2	559.8	447.3
Other	87.3	24.3	54.0
Sub total	301.5	584.1	501.3
New Brunswick			
Minto	18.0	2.7	-
Other	13.5	13.5	.9
Sub total	31.5	16.2	.9
Ontario	216.0		
Saskatchewan			
Estevan	307.8	493.2	433.8
Willow Bunch	742.5	1,035.9	1,408.5
Wood Mountain	275.4	727.2	1,105.2
Cypress	161.1	403.2	461.7
Sub total	1,486.8	2,659.5	3,409.2
Alberta			
Plains	9,384.3	-	80,615.7
Outer Foothills	1,080.0	-	7,920.0
Inner Foothills	7,155.0	-	19,845.0
Sub total	17,619.3	-	108,380.7
British Columbia			
Southeastern	6,237.9	9,361.8	36,029.7
Northeastern	988.2	459.0	7,658.1
Other	1,830.6	90.0	7,380.0
Sub total	9,056.7	9,910.8	51,067.8
Canada total	28,711.8	13,178.6	163,359.9

^a Recoverable coal is the part of a mineable coal deposit that can be delivered at the mine mouth as raw coal prior to further upgrading.

^b Quality information is based on individual company intentions as to end use.

* Table originally expressed in short (2,000 lb.) tons.

Source: EMR, 1976 Assessment of Coal Resources and Reserves.

significant import demand. The Electric Power Development Company, which is government-owned, has recently built a new electric power generating station which will use thermal coal. The Kyushu Power Company (in the southern island of the Japanese chain) is also constructing a coal-burning power house which will need thermal coal by 1980-81. In its current phase it is importing about one million tonnes of thermal coal annually for test purposes and, in three years, will require approximately three million tonnes. It is estimated that by 1985-86 about eight million tonnes will be imported annually. This is not to say that Canadian producers will definitely get a share of the new thermal coal export market; their success will, of course, depend on how well they can compete. What it does show, however, is that there are some promising signs for thermal coal exports.

Canadian policies and programs for coal

The Canadian government has been actively encouraging the development and use of energy sources, including coal, as an alternative to imported oil. The government articulated its energy policy in the 1976 publication of A National Energy

Strategy, the overall objectives of which were to reduce Canada's "vulnerability to arbitrary changes in price and prolonged interruptions in supply" and to develop "self-reliance" by "supplying Canadian energy requirements from domestic resources to the greatest extent practicable." The strategy has a number of elements of which the following are the most directly relevant to coal: 1) increased exploration and development; 2) increased resource information; 3) interfuel substitution; 4) new delivery systems; and 5) increased research and development.

Though the policy element on exploration and development was directed at oil and gas, the Canadian government has cooperated with provincial governments in a number of joint projects relevant to coal. With Nova Scotia the Canadian government agreed to participate in a \$7.5 million drilling program for onshore and offshore coal exploration. With British Columbia it participated in a \$10 million program to evaluate the geological, environmental, manpower, transportation and townsite factors related to the possible development of coal deposits in the northeastern part of that province.

The second policy element was to increase resource information. The

objective was to create a National Coal Inventory Program designed to determine and compile data on the quantity, mineability and economics of Canadian coal as well as to interpret the information to provide cost and availability estimates of coal reserves. The information was to be gathered with the provinces on a provincial basis.

The third element of interest was interfuel substitution. This involves encouraging the substitution of coal and other domestic energy sources for imported oil in electricity generation and encouraging substitution capability in the design of energy conversion systems such as coal gasification.

The fourth element concerned new delivery systems. In general, the objective was to ensure that the Canadian transportation system be as efficient as possible in linking producers and consumers within the country and in providing producers a reliable system for delivering their coal to foreign markets.

The fifth and perhaps most important element was to increase research and development. The strategy stated unequivocally that "the decline of coal as a major source of energy must be reversed. To accomplish this, new approaches to mining, protecting the environment and



transporting and utilizing coal are required." Consistent with this orientation, the Canadian government has contributed to several R & D projects related to energy in general and coal in particular. It participates in the Alberta/Canada Resources Research Fund, which includes projects in coal mining and *in situ* gasification. It is collaborating with private industry and utilities in the funding of a research and development program on the substitution of coal for oil and natural gas. This research effort covers gasification and liquefaction of coal, and new methods of burning coal.

The government's contribution to the development of the coal industry has not been limited to the domestic market.

Realizing the immense value of foreign markets, the departments of Industry, Trade and Commerce and Energy, Mines and Resources jointly prepared a thorough market survey of world requirements for both coking and thermal coal in Europe, Latin America and Asia. This was made available in 1976 to the Canadian coal industry as a useful marketing and intelligence tool.

Another government initiative related to foreign markets has been sales missions. In 1977, the above-mentioned departments organized a sales mission to Japan and other Far Eastern countries for companies hoping to sell or expand sales of coking coal. A similar program was provided in May 1978 for thermal coal.

Summary

Geography, history and economics have made Canada's coal industry rather complex and unique. Geography has separated Canada's coal producers from some of the country's largest consumers. History and economics have at one time or other made coal prince and pauper of the resource industries. Though data on resources and demand projections tend to be speculative, it is clear that coal will play an increasingly important role in this country's future: its potential suggests it; government policy recommends it; and the diminishing availability of other energy sources requires it.

Table 3
Principal Canadian Coal Producers in 1977

Company and location	Estimated Production ^a (000 t)	Coal Rank ^b	Chief Markets	Type of Mining
Nova Scotia				
Cape Breton Development Corporation				
No. 26 Colliery, Glace Bay	707	Hvb	Metallurgical	Underground
Lingan Mines, Lingan	1,400	Hvb	Thermal Power	Underground
Prince Mine, Point Aconi	208	Hvb	Thermal Power	Underground
New Brunswick				
N.B. Coal Limited, Minto	317	Hvb	Thermal Power	Surface
Saskatchewan				
Manalta Coal Ltd.				
Klimax Mine, Estevan	1,600	Lig	Thermal Power	Surface
Utility Coals Ltd., Estevan	1,300	Lig	Thermal Power	Surface
Manitoba and Saskatchewan Coal Company (Limited)				
Boundary Dam Mine, Estevan	1,600	Lig	Thermal Power	Surface
Bienfait Mine, Bienfait	544	Lig	Thermal Power	Surface
Saskatchewan Power Corporation				
Souris Valley Mine	318	Lig	Thermal Power	Surface
Alberta				
Coleman Collieries Limited, Coleman	813	Mvb	Metallurgical (Japan)	Surface and Underground
The Canmore Mines, Limited, Canmore	110	An	Metallurgical (Japan)	Surface and Underground
Cardinal River Coals Ltd., Luscar	1,600	Mvb	Metallurgical (Japan)	Surface
McIntyre Mines Limited, Grande Cache	1,800	Lvb	Metallurgical (Japan)	Surface and Underground
Forestburg Collieries Limited, Forestburg	900	Sub	Thermal Power	Surface
Manalta Coal Limited				
Vesta Mines, Halkirk	410	Sub	Thermal Power	Surface
Roselyn Mine, Sheerness	410	Sub	Thermal Power	Surface
Whitewood Mine, Wabamun	1,500	Sub	Thermal Power	Surface
Highvale Mine, Sundance	4,500	Sub	Thermal Power	Surface
British Columbia				
Kaiser Resources Coal Ltd., Sparwood	5,500	Mvb	Metallurgical (Japan)	Surface and Underground
Fording Coal Limited, Elkford	3,100	Mvb	Metallurgical (Japan)	Surface
Byron Creek Collieries, Corbin	350	Mvb	Thermal Power	Surface

a Clean coal or as shipped tonnes.

b Lvb — Low volatile bituminous. Mvb — Medium volatile bituminous.
Lig — Lignite. An — Semi anthracite. Hvb — High volatile bituminous.
Sub — Sub bituminous.

Source: Coal by J. Aylsworth, Canadian Mining Journal, February 1978.

West European Investments in Canada

by Gilles Gratton

In recent years, European multinational corporations have been gaining significant ground on their U.S. counterparts. European firms have taken the lead in some sectors and have significantly improved their rank in many others. For example, Hoechst and BASF have become world leaders in the chemical industry; Philips (Netherlands) and Siemens (West Germany) now rank third and fourth as producers of household appliances and electronic equipment; Gutehoffnungshutte and Brown Boveri are second and third in general engineering; Flick and Reed have joined Bowater in the top ten of world paper production; and Hoechst, Bayer and Ciba-Geigy are the leading pharmaceutical producers, ahead of Johnson & Johnson. Recent trends of European investments in Canada must be viewed in light of this international background.

West European investments in Canada have increased significantly since the Second World War. Their rate of increase has actually surpassed that of U.S. investments. This comparison, however, can be misleading because the European base in Canada is very much smaller than that of the United States. Nevertheless, the European presence is growing as a result of the increasing international strength of European multinationals, their search for secure supplies of primary resources and the view of some of them that Canada is a good place to enter the North American market.

The early role of British investment

In any survey of European investment in Canada, the role of British capital deserves special mention because of its importance in the early commercial development of the country. Two corporate giants, the Hudson's Bay Company and Canadian Pacific, both formerly predominantly British-owned, serve as reminders of the early preeminence of British investment in Canada. But it is not as well known that the London bond market was the principal source of foreign capital for the development of Canada until well into the current century. Indeed Britain remained the largest single foreign investor in Canada until about 1920.

The book value of British capital invested in Canada in 1930 amounted to \$2.8 billion. Thereafter, through the 1930s and 1940s little new investment flowed from Britain to Canada, and as much of the earlier financing had been through bonds, repayments and some defaults in the depression years greatly reduced the stock of British-owned capital in Canada. By 1950 the book value of British investment in this country had declined to \$1.8 billion of which under \$500 million represented direct investment (i.e. investment in British-controlled companies) and \$1.3 billion represented portfolio investments.

This investment pattern changed dramatically in the 1950s. From 1950 to 1960, the value of Britain's direct investments increased from under \$500 million to \$1.5 billion, while its portfolio investments rose from \$1.3 billion to \$1.8 billion. In 1960, British interests controlled almost 1,400 firms in Canada, including 400 manufacturing firms, 430 commercial businesses and about 250 financial institutions. Most of the investments were made in the oil, forest products, textile, chemical and transportation equipment industries. The 12 largest accounted for over \$1 billion of the total. The latter included British Petroleum, Shell, Bowater, Reed, C.I.L., Imperial Tobacco, Tate and Lyle, Cadbury, Rowntree, A.V. Roe Canada, Vickers and Rio Tinto. During the 1960s and 1970s many of the British firms in Canada strengthened their position in the North American market through expansion and diversification.

Investment from continental Europe

European (other than British) investment in Canada only began to be significant in the early 1960s. Before then, most European capital came to Canada in the form of portfolio investments, but even these were very small. By 1946, for example, the value of European direct investments had reached only \$63 million, with only \$11 million going to manufacturing and over \$40 million, to financial institutions. In all, there were approximately 80 European firms, most of them financial institutions. The 1950s, however, saw the value of European direct investments rise sharply from \$80 million in 1950 to \$800 million in 1960 while the number of continental European firms rose to 300 in 1955, and to over 500 in 1960. In this period, Belgians were the leading European investors, with investments totalling about \$225 million. They were

followed by the French (\$180 million), the Swiss (\$150 million), the Germans (\$110 million), the Dutch and the Swedish (\$35 million). Though a large proportion of the investments were still destined for financial institutions, other trends were already becoming apparent. Half the manufacturing investments were earmarked for the development of the non-metallic mineral industry, mainly cement, and oil refining. Furthermore, direct investments in primary metals manufacturing were increasing.

In addition to being highly concentrated in a limited number of industrial sectors, the bulk of European investments were confined to a very limited number of large corporations. Most Belgian investments, for example, were being made by

Petrofina, the Société générale de Belgique, the Cimenteries CBR and the Empain Group who together accounted for \$175 million of the \$225 million invested by 1960. This concentration was also true of French investments which were mostly accounted for by Air Liquide, Lafarge and a few financial institutions. Dutch investments were largely concentrated in four companies: Shell (a Dutch-British firm), Philips, Nationale Nederlanden N.V. and the Patino Group.

Like the British, continental European investors considerably expanded their Canadian activities in the 1960s and 1970s. The two most significant developments of the 1970s were : 1) the establishment of an increasing number of small- and medium-sized European firms in Canada,

active mainly in the manufacture of machinery, electrical products and chemicals; and 2) the considerable increase of European investment in energy exploration, principally uranium and petroleum. Equally of note, the rising number of acquisitions of U.S. firms by European companies had repercussions in Canada, where European firms indirectly acquired Canadian subsidiaries of American firms. For example, when Thyssen, a company which already had significant interests in Canada, acquired control of the Budd Company of the United States, it also acquired an interest in the Canadian subsidiary, Budd Automotive of Canada, which produces automobile chassis for General Motors.

A measure of the importance to Canada



of European investment can be gained from the fact that European investors, or companies controlled in Europe, have accounted for just under 30 percent of the takeover proposals and over 35 percent of the proposals to establish new businesses submitted to date for review under the Foreign Investment Review Act.

Though European investments in Canada, including those by British investors, have been expanding rapidly, they have attracted considerably less attention than U.S. investments. This can be attributed to the relatively smaller volume of European investments compared to those of the United States, their concentration in industrial sectors and, with few exceptions, their very limited participation in the production of consumer products in Canada. The consumer products they are associated with, such as Lipton soups, Philips home appliances, Nestlé foods and Unilever's Lux soap, have been in Canada for so long that most Canadians are no longer aware of their foreign roots. By far the greatest part of European manufacturing investment is still in the production of industrial products such as cement, machinery, chemicals and electrical equipment. The leading European investors in these areas are the Germans (Kugelfischer, Siemens, Klockner-Moeller, Demag, Klockner-Humboldt-Deutz and O & K Orenstein and Koppel), and the French (Leroy-Somer, Linier, HES Machine Tools, Levage Sepa and Moteurs Drouard). Other Europeans in this sector are the Italians, Danish and Dutch (Dijkers, Hughes-Owens and others).

Europeans have become important in the construction and construction products sectors as well as in the manufacturing of industrial products. Many European firms were active in Canada's industrialization, especially in the development of an infrastructure and extensive power network. The construction firms of Camus, Dumez,

Grands Travaux de Marseilles, Franki and Impreglio-Spino all participated in the development of highways, roads, bridges and hydro-electric dams. Impreglio-Spino, an Italian-Canadian firm in which three big construction firms from Milan (Impresit, Girola and Lodigiani) have interests, holds the largest contract in the multi-billion dollar James Bay hydro-electric project.

Europeans also have an important stake in the building materials sector. For example, the Canadian cement industry is almost entirely controlled by European firms: Lafarge, which controls about 40 percent of the market and has successfully penetrated the U.S. market, Genstar (Société générale de Belgique and Associated Portland Cement Manufacturers of Great Britain) and Ciments Saint-Laurent (Holderbank of Switzerland). In the construction products manufacturing sector, one finds German (Danzer, Manessmann, August Thyssen-Hutte and a few others) and Dutch firms, including Hunter-Douglas. Didier recently established a \$25-million plant for producing firebricks near the SKW works in Bécancour. The Canadian cement, steel, non-ferrous metal and chemical industries will now be able to obtain supplies in Canada which they previously had to import. Furthermore, 80 percent of Didier's products will be exported.

In the past few years, European manufacturers have set up firms to produce equipment for the mining, oil and chemical industries. Examples are Fried Krupp of Germany and Nuova Raccordi Forgiati of Italy. This Italian firm is associated with a new \$30-million joint venture (Uniracor Ltd.) to produce steel pipe fittings. These products, which have been mostly imported at a cost of about \$45 to \$60 million, are used in the chemical and petrochemical industries, and in nuclear facilities.

Prominent European chemical firms are also well established in Canada. They include Imperial Chemical Industries of

European Investment in Canada — 1975

(millions of dollars)

Source: Statistics Canada

European Direct Investment	Total 6,924
European Controlled Investment	Total 13,684



Foreign Direct Investment in Canada

	Book value in millions of dollars					Percent increase		
	1930	1945	1955	1965	1975	1945-55	1955-65	1965-75
U.K.	392	348	890	2,033	3,717	156	128	83
Other Europe	42 ^a	61 ^a	325 ^a	1,131	3,207	432	248	184
U.S.A.	1,993	2,304	6,513	14,059	32,194	183	116	129

^a Includes a small amount of non-European investment

Source: Statistics Canada

Distribution of Foreign Direct Investment in Canada by Industry, 1975

	United States Percent	United Kingdom Percent	Other Countries Percent
Manufacturing	42.9	32.6	32.3
Petroleum & natural gas	24.2	20.0	25.5
Mining and smelting	11.4	7.6	9.9
Utilities	1.7	0.1	0.9
Merchandising	6.5	8.6	6.3
Financial	9.4	27.2	21.6
Other	3.7	4.0	3.5
	100.0	100.0	100.0

Source: Statistics Canada

England, Ciba-Geigy, Pechiney Ugine Kuhlmann, BASF and Hoechst. More recently KemaNord AB of Sweden has announced that it will build a sodium chlorate plant, making possible a reduction in imports of that product, which is used in paper production.

European investment in resource development

European investment in the exploration and development of Canada's mineral and oil resources has also grown mainly since the 1950s. It is interesting to note that a number of the European firms in this investment field are either state-controlled or have some state participation. A 1977 Canadian government survey showed that no less than 45 European-controlled firms in Canada in resource development had some form of foreign government participation.

B.P., Shell and Petrofina are the largest European companies involved in Canadian oil and gas exploration and development.

Total Petroleum, a subsidiary of the Compagnie Française des Pétroles, also has an important stake in numerous oil and gas fields. Elf and Aquitaine, whose Canadian assets are valued at almost \$500 million, are each carrying out aggressive exploration programs. Aquitaine, moreover, holds a 75-percent interest in a major gas processing plant. The Italian group ENI has exploration rights off the Atlantic coast, while a consortium of German firms, Deminex, is exploring frontier zones.

European firms have been particularly visible in uranium exploration. Amok, a French company, has initiated a large-scale production program in Saskatchewan involving the investment of about \$130 million over the next two years. Seru Nucléaire (Canada), a subsidiary of the Société d'Études et de Recherches d'Uranium de France, is cooperating with Canadian interests in the exploration of the James Bay area. Uranerzbergbau and the Government of Saskatchewan are jointly involved in the \$100-million development of a new mine. B.P. is carrying out extensive uranium exploration and subsidiaries of the Italian Ente Nazionale Indrocarburi have concluded joint-venture agreements with Canadian firms to explore for uranium. Indeed as interest in uranium

exploration has quickened in recent years, a sizable number of consortia involving Canadian and European investors have been formed to search for this valuable resource.

European firms are also active in other mining sectors. They include Patino N.V. with copper-gold mines in Quebec and Elco Mining Ltd., a consortium of six European firms involved in the development of coal properties in British Columbia, as well as firms active in mineral exploration, such as Metallgesellschaft and Pechiney Ugine Kuhlmann.

European investment in finance

The financial sector has traditionally been one of the most active destinations for European capital in Canada. In fact, well over 20 percent of European direct investment is in this sector. One has only to think of the British insurance companies, Norwich Union Life, Commercial Union Assurances, Royal and Standard, and Prudential. In addition, the Crédit foncier Franco-Canadien, was established at the end of the 19th century, with the participation of European investors. Others who have established themselves in this country are l'Abeille and La Paix which are known in Canada as the Victoire Group. The Nationale-Nederlanden, N.V. also has considerable holdings, as do Holland Life Insurance and Ennis N.V. of The Hague.

The European industrial presence in Canada and the internationalization of financial transactions have drawn a significant number of financial institutions, affiliated with European banks, to Canada. At present Canadian legislation places restrictions on foreign ownership of Canadian chartered banks. No shareholder or his associates (whether Canadian or non-resident) may hold over 10 percent of the voting stock of a bank and the collective holdings of non-residents are limited to 25 percent. Foreign banks, however, did contribute to the formation of the two newest Canadian banks. The British bank S.G. Warburg and the Paribas International Group each acquired an interest in the share-capital of the Commercial and Industrial Bank, and the Deutsche Genossenschaftsbank is also a shareholder in the Northland Bank. As well, a considerable number of affiliates of European banks are providing, either alone or in partnership with others, a variety of financial services in Canada — the making of loans, leasing, factoring and venture capital activities. In addition many prominent European banks have established representative offices in Canada. Proposed changes in Canadian banking legislation will permit the establishment of wholly foreign-owned banks in Canada. It is expected that a



number of European banks will seize this opportunity to gain a stronger foothold in the Canadian financial sector.

Joint ventures

One interesting feature of recent European investment in Canada has been the growing frequency of joint ventures with Canadian firms. A survey of the main European investment projects (from \$5 million up) underway in Canada in 1978 shows that many are being carried on in conjunction with Canadian entrepreneurs. Some of these projects and the European investors involved are: a new plant to manufacture automobile engine components (CAE — Montpet Diecast) in which the Société Industrielle et Financière Montpet has a 20-percent interest; a new sawmill (Houston Forest Products) joint venture with Eurocan Pulp and Paper Co., owned by two Finnish companies; and a project to manufacture specialty steel (Les Forges HPC Ltée) in which the Société de Forgeage de Rive de Gier has a 60-percent interest.

An earlier joint venture that has proved particularly successful is that formed in 1965 between the Compagnie Générale d'Electricité and the General Investment Corporation of Quebec, a Quebec government agency, to manufacture electrical insulators and switch components. These products are found today on 80 percent of all electrical energy transmission networks in Canada and the technology developed is now exported to South Africa and Brazil. In partnership with other subsidiaries of the Compagnie Générale d'Electricité, the joint venture is developing new technologies in manufacturing low- and medium-voltage cells.

Other European companies have concluded licensing agreements with Canadian entrepreneurs. For example, Bombardier is making generators designed by the Italian firm Grandi Motori Trieste, while Marine Industries is producing electric turbines from French technology. In 1977, the Ontario Ministry of Industry and Commerce recorded about a dozen major manufacturing agreements between industrial firms in that province and European firms.

Over the years Canada has derived considerable benefit from European investment. Besides providing an alternative source of funds for the development of Canadian industry and resources, Europeans have often brought new technology and management skills. Canada still seeks investments that can contribute to the achievement of its economic objectives. That goal and the increasing strength and investment vigour of European multinationals suggest that the European presence here will continue to grow.

Soviet and East European Direct Investment in Canada

by Carl H. McMillan

In March 1978 the Economic and Social Council of the United Nations published the conclusions of its first major re-examination since 1973 of the role of the transnational corporation in world development. The report revealed that from 1967 to 1976 the relative importance of foreign direct investment from both developing and socialist countries had increased. Canada has been one of the countries affected by increased socialist foreign investment.

The socialist countries of Eastern Europe (USSR, Bulgaria, Czechoslovakia, German Democratic Republic, Hungary, Poland and Romania) have been following over the past decade a strategy of re-entry into the world economy. An important facet of this strategy has been the establishment of companies in the West, either wholly-owned or owned jointly with local or other foreign partners. Most of these companies have been formed in industrialized Western countries, but an increasing number of direct investments have been made in developing countries. The East-West Project in the Institute of Soviet and East European Studies at Carleton University in Ottawa has identified 356 companies in the OECD countries in which equity was held at the end of 1978 by state enterprises of the USSR and its six East European partners in the Council for Mutual Economic Assistance (COMECON). In addition it has found 179 Soviet and East European direct investments in developing countries. Of the 356 OECD companies 23 percent are wholly owned by socialist parent enterprises. The socialist share amounts to 50 percent or more in all but 15 percent of the remaining mixed equity companies.

The major socialist investors in the industrialized West are the USSR (91 companies), Poland (87) and Hungary (57). They have invested mainly in Germany, France, the United Kingdom, Austria, Italy, the Benelux countries and Sweden. By end-1978, 39 Soviet and East European companies had been established in North America, 15 in Canada and 24 in the United States. Ten of the U.S. companies were founded after 1975 (2 in 1978), whereas only one new company was established in Canada during that period.

Information on the book value of socialist direct investment in the West is fragmentary. Carleton's East-West Project estimates the assets of companies in the industrialized West, in which there is socialist equity, at over \$750 million. Much of this is concentrated in the 23 banks and insurance and leasing companies owned by the socialist countries. The average assets of the remaining companies barely exceed \$1 million.

The reasons for the small average value

of the assets of most socialist companies abroad is that they are concentrated in the service sector, especially in marketing and transportation. Socialist investments in the West, however, are becoming more diversified with a growing number of banks and more investments in the extractive and manufacturing industries.

Soviet and East European investments in Canada

The 15 Soviet and East European companies in Canada are relatively new, the exceptions being Omnitrade Ltd. and Pekao Trading Company which were founded in the early postwar period. Most of the companies, representing investments by the Soviet Union, Hungary, Czechoslovakia, Romania and Bulgaria, were founded between 1971 and 1976.

In 12 of the companies socialist equity represents a majority share and, in eleven, 95 percent or more. The capital invested in these companies is not great, however, with individual investments ranging from \$25,000 to \$1 million. While balance-of-payments data specifically on direct Soviet and East European investment in Canada are not available, Statistics Canada estimated the book value of direct investment by the "centrally-planned economies" from 1971 to the end of 1975 at \$20 million, including long-term loans from parent to subsidiary as well as equity capital invested by the controlling country. Most of this investment was from the USSR (which accounted for over half), Czechoslovakia and Poland with most of it occurring in 1974 and 1975. Since 1975, the socialist countries have apparently not found that the state of the Canadian market justified significant new investments. Furthermore, socialist practice is to support the development of existing companies, wherever possible, through the reinvestment of profits or through local borrowings.

Fourteen of the companies were established to market products exported to Canada by the socialist parent or by other enterprises in the home country. The other, also in the service sector, is an agent for Soviet shipping on the Pacific coast.

In contrast to the trading firms



In October of 1978 the Honourable Jack H. Horner, Canada's Minister of Industry, Trade and Commerce, and Mr. N.S. Patolichev, Soviet Minister of Foreign Trade, met to discuss the expansion of Canada-USSR trade.

established earlier, all of the companies founded in the 1970s are specialized by product. The majority, moreover, specialize in the marketing of machinery and equipment such as agricultural implements, machine tools, electric turbines and aircraft. The higher capitalization of some of these companies shows that product modification and servicing are an important adjunct to their sales. For example, the Soviet machine-tool firm, Stan-Canada Machinery Ltd., has an impressive headquarters in Toronto with large showrooms and built-in warehouse and staging areas. It also has similar though smaller facilities in Montreal.

Soviet and East European investments in Canada could gradually extend to other sectors, the most probable being fisheries, mining, manufacturing (assembly of imported machinery and equipment components) and even banking, if the relevant amendments to the Bank Act are adopted. Several cases suggest such an extension. Polish-Canadian fishing ventures have been discussed. The Czechoslovak company Omnitrade Ltd. in Montreal has extended its activities to production (mining machinery) through the acquisition of a local manufacturing firm. The Soviet-owned Moscow Narodny Bank Ltd. of London has long considered establishing a North American branch. Finally, the Romanians are reported to be interested in gaining access to supplies of Canadian metallurgical coal. They might take an equity interest in a Canadian operation, as they sought to do in the United States in the development of the Island Creek Coal Co. in Virginia, a subsidiary of Occidental Petroleum. U.S. tax regulations discouraged the Romanians from investing directly in the Island Creek operation and they settled for a \$53-million

advance payment in return for guaranteed annual shipments of metallurgical coal at agreed terms over a period of 35 years.

In the case of mixed equity companies, the Canadian partners are frequently individuals (company lawyers or former agents) who are senior executives or directors. In other cases, the partners are usually small Canadian companies with prior association as representatives in Canada of the socialist parent enterprise. Allarco Developments Ltd. is the only well-known Canadian joint investor, its subsidiary, International Jet Air, owning one third of Socan Aircraft Ltd. of Calgary, which was established to market a small Soviet passenger jet aircraft called the Yak-40.

The staff of a socialist company in Canada is a mixture of Canadians and nationals from the home country. The nationals usually occupy some of the principal management and most technical positions, while Canadians are usually in sales, public relations and clerical positions.

Investor motives

The principal motive for Soviet and East European investments in Canada has been to facilitate the sale of socialist products or, as in the case of Morflot Freightliners Ltd., services in the North American market. The new socialist external strategy in the 1970s has involved a major drive to expand manufactured exports. While traditional socialist exports to the West have been primary products that can be marketed through trade missions or local agents, more effective marketing techniques are needed to expand exports of diversified and sophisticated manufactured products and related services.

New objectives require new

instruments. Development of a permanent market in the West for industrial machinery and equipment or consumer goods requires not only detailed knowledge of customer needs and preferences, but rapid and flexible servicing of their demands. Trade mission officials do not have either the specialized knowledge or the time required by such markets. Local agents have also been increasingly regarded as unsatisfactory, their interests frequently conflicting with those of their socialist employers. By pursuing their own profits, local agents frequently overlook socialist manufactured goods in favor of the more marketable goods of other clients, sometimes the direct competitors of the socialist enterprises. Furthermore, direct investment is necessary to establish an effective infrastructure, including the marketing and servicing of machinery and equipment, warehousing and support facilities, dealer networks and technical service centers.

The decision to take on a local partner is basically the same for socialist and capitalist investors, both having to weigh the advantages of association with a materially interested partner who has local contacts and expertise, against those of full control. In the case of East-West partnerships, however, investors must consider additional factors. Socialist products, developed in a very different economic environment, can confront special problems on Western markets which a partnership, with its greater local identity and know-how, may help to overcome. On the other hand, the bureaucratic nature of the socialist parent and the centralized system of state planning and control under which it operates can make joint-equity ventures particularly difficult.

Policy issues for host countries

The growth of direct investment by Soviet and East European state enterprises raises certain policy issues for Canada and other Western host countries. While Soviet and East European direct investment in Canada is presently insignificant relative to other international investment flows, it seems likely to continue to grow rapidly and diversify as the socialist countries pursue new markets and sources of supply in the West. Trends in the internationalization of production suggest that Soviet and East European investment will increasingly extend to the extractive, processing and manufacturing industries as the socialist countries become increasingly involved in the world economy. Though ownership and management of productive assets in a capitalist economy create serious ideological problems for socialist countries and persistent hard-currency deficits constrain their ability to undertake major capital investments in the West, they will have to expand and diversify their foreign

investment in order to meet the requirements of international sourcing and more effective servicing of foreign markets.

A second cause for concern is the potential political influence that could be exercised by the socialist countries through direct ownership and control of companies abroad. This could lead to actions contrary to the interests of host countries. Direct foreign investment by state-owned corporations, however, is not limited to East-West relations, but is also common to relations among Western countries. Moreover, there have been well-publicized instances of private Western multinationals being used by governments for covert political activities in host countries. Nevertheless, Soviet and East European investors cause special concern because they are subject to a more centralized governmental control and their national objectives are more likely to conflict with those of host

countries in the West.

In these circumstances the operational record of the companies in question is crucial. Evidence indicates that Soviet and East European companies in Canada follow familiar commercial norms and that their operations do not differ markedly from those of other foreign-owned firms. Furthermore, there have been no publicized cases of subversive behavior.

The commercial objectives of the socialist companies are compatible with Canadian interests, their primary purpose being to adapt their products and services to Canadian needs. The benefits of Canadian imports from the socialist countries should therefore increase. In the case of countries such as the USSR, who have persistently had large trade deficits with Canada, their expanded exports are a means of creating a better balance of trade and a more stable base for the further expansion and normalization of trade relations.

For further information

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SOVIET AND EAST EUROPEAN COMPANIES IN CANADA

Company	Head Office	Year Established	Socialist Partner	Socialist Equity	Issued Share Capital	Principal Activity
Omnitrade Ltd.	Montreal	1947	Transakta (Czechoslovakia)	100%	\$1,000,000	Sells and services wide range of industrial products.
Pekao Trading Company Canada Ltd.	Toronto	1956	Bank Polska Kasa Opieki (Poland)	99%	\$ 25,000	Sells consumer and manufactured products.
Dalimpex Ltd.	Montreal	1965	DAL (Poland)	95%	\$ 150,000	Sells and services wide range of consumer and industrial products.
Cebecom Ltd.	Toronto	1965	Bulgarkonserv (Bulgaria)	50%	\$ 47,600	Sells fruits, preserves and other food products.
Motokov Canada Inc.	Montreal	1966	Motokov (Czechoslovakia)	100%	\$ 725,000	Sells and services Czech motorcycles, bicycles and mopeds.
Superlux Canada Ltd.	Montreal	1967	Glassexport (Czechoslovakia)	100%	\$ 100,000	Sells products of Czech glass industry.
Morflot Freightliners Ltd.	Vancouver	1971	Sovinflot (USSR)	95%	\$ 100,000	Agent for Soviet shipping to Canadian West Coast.
Belarus Equipment Ltd.	Toronto	1972	Traktoroexport, Zapchastexport (USSR)	100%	\$ 500,000	Sells and services Soviet agricultural equipment in Canada.
Stan-Canada Machinery Ltd.	Toronto	1972	Stankoimport (USSR)	100%	\$ 900,000	Sells and services Soviet machine tools in Canada and the United States.
EMEC Trading Ltd.	Vancouver	1973	Energomachexport (USSR)	95%	\$ 414,000	Sells and installs electrical generators and turbines.
Omnitrade Industrial Co. Ltd.	Montreal	1973	Transakta (Czechoslovakia)	100%	\$ 50,000	Sells and services textile machinery and other products in the United States through operating divisions in New York and North Carolina.
Hungarotex-Canada Ltd.	Montreal	1974	Hungarotex (Hungary)	50%	\$ 50,000	Sells Hungarian textiles in Canada and abroad.
Terra Power Tractor Company Ltd.	Saskatoon	1974	Universal Tractor (Romania)	100%	\$ 100,000	Sells and services Romanian agricultural equipment in Western Canada.
Socan Aircraft Ltd.	Calgary	1975	Aviaexport (USSR)	67%	\$ 50,000	Sells and services Soviet aircraft.
Ascott Equipment Ltd.	Sherbrooke	1976	Universal Tractor (Romania)	49%	\$ 150,000	Sells and services agricultural equipment in Eastern Canada.

Source: Information on file in the East-West Project, Institute of Soviet and East European Studies, Carleton University.

Participation of Canadians in the management of foreign-owned subsidiaries in Canada

by Frank Swedlove

The proportion of Canadians in the senior management of foreign-owned subsidiaries in Canada has increased considerably in the past 10 to 15 years. This is one of the key findings of a survey carried out recently by the author who compared 1975 data with those of 1962.

The 1975 data relate to the largest 133 foreign-owned subsidiaries in Canadian manufacturing and mining. Most of the data were obtained from publicly available forms which companies fill out for the federal government under the Corporation and Labour Union Returns Act (CALURA). These data were supplemented by discussions with some of the firms. The recent survey was prepared in such a way as to be as comparable as possible with an earlier survey carried out by Statistics Canada using 1962 CALURA data pertaining to 138 corporations. The two lists of companies, while not identical in makeup, are very similar.

The principal findings of the two surveys are shown in Table 1.

The most striking change to be observed from the results of the two surveys is that the percentage of subsidiaries whose presidents were Canadian citizens rose from about 45% in 1962 to over 65% in 1975. As well, by 1975 more than 87% of presidents were full-time residents of Canada, compared with less than 75% in 1962. Also, among other senior officers resident in Canada, an increase took place in the percentage who were Canadians.

The most recent survey also obtained information on the nationality of those officers who were *not* Canadian citizens. Of the 46 non-Canadian presidents, 41 (or 89%) were nationals of the country of the parent company. Among the 112 other senior officers who were not Canadian, 86 (or 77%) were similarly nationals of the home country of the parent. The lower percentage for other officers than for presidents may indicate greater mobility of officers among the subsidiaries at the less-than-presidential levels. The presidency, meanwhile, when not filled by a Canadian, seems more likely to be filled by someone from the parent company rather than by someone from a subsidiary in another country.

What characteristics of the subsidiary might make it increasingly likely, as time goes on, to choose Canadians for its senior management positions? The recent survey analyzed the sample firms according to four possible characteristics: (1) industry group, (2) number of years operating in Canada, (3) relative size, and (4) country of parent. The following results were obtained.

Industry group

The analysis of companies by industry group was hampered by the large number of industries represented in the survey. However, ten industries, each with at least five companies represented, could be identified. In four of the industries, at least 75% of the companies had a president who was both resident in Canada and a Canadian citizen. The four industries were food and beverages, pulp and paper, integrated oil, and chemicals. Of the four, the industry with the largest percentage of presidents who were Canadian was the integrated oil industry, where eight of nine were resident Canadian citizens. In five other industries, roughly 50% of the presidents were Canadian — vehicles and parts, machinery and electrical equipment, rubber and plastics, mineral resources, and primary metals. Companies classified as holding companies had the lowest percentage, with only two of six presidents being Canadian.

As to other senior officers, the companies generally had higher percentages of Canadian participation, with all 10 industries having over 75% Canadians. The pulp and paper industry had the highest figure, with 96% of senior officers (apart from presidents) being Canadian.

Number of years in Canada

One presumes that the longer a foreign-owned subsidiary has been in Canada, the more time it has had to develop its own managers and to become generally more competent in handling its own affairs, including the choosing of its own executives.

The survey gives support to this hypothesis. The companies were divided into three groups — (i) those that have been Canada for up to 19 years, (ii) those in Canada 20 to 39 years, and (iii) those in Canada for 40 years or more. For companies in the first category (1-19 years), only 48% of the presidents were Canadians. For those in the second category (20-39 years), the percentage was 63%. Meanwhile, the highest percentage was for those in the third category (over 40 years), where 72% of the presidents were Canadians. A similar pattern holds true for the percentage of presidents resident in

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Canada, with 78% for the youngest companies, 84% for those in the middle category, and 91% for the oldest group.

As to other senior officers, however, the number of years the company has been in Canada seems of little significance. The differences were less than 4 percentage points among the three categories, with the medium-age category having a slightly higher rate of Canadian participation than the youngest or oldest companies.

Size of firm

Sales of the subsidiary were used as the measure of firm size. All 133 firms in the sample would be considered "large" by Canadian standards. Nevertheless their annual sales varied from over \$5 billion down to \$67 million — a range wide enough to permit analysis of the relationship between size of firm and degree of Canadian participation in management. The firms were separated into four size categories to facilitate comparisons.

A correlation between size of firm and nationality of officers was evident for only the presidents. The largest firms had Canadian presidents in 76% of cases, and the percentage dropped with the decline in firm size. The category of smallest firms had Canadian presidents in only 54% of cases. But as for residence of presidents and citizenship of other senior officers, size of firm appeared to be irrelevant.

Country of parent

To determine the significance of country of parent, three geographic groups were used — the United States, the United Kingdom, and other European countries — with the United States having by far the largest number of Canadian subsidiaries represented in the sample. Seventy percent of the subsidiaries whose parent companies were in the United States had Canadian citizens as presidents. The figure was 50% for subsidiaries controlled in the United Kingdom or in other European countries. While this difference may be, in part, a reflection of a difference in corporate philosophies between U.S. and European companies, it may also be a reflection of the fact that the U.S. subsidiaries had generally been established in Canada for a longer period of time than the U.K. and other European subsidiaries. As noted above, the extent of Canadian participation in senior management tends to increase with the length of time the subsidiary has been operating in Canada.

As to country of residence of the president, subsidiaries of U.K. companies had the highest percentage residing in Canada, but only marginally higher than for subsidiaries of U.S. and other European subsidiaries. There was no significant difference among subsidiaries

Table 1

Survey year	No. of corporations	No. of presidents		Other officers	
		Resident in Canada	Canadian citizens	Resident in Canada	Canadian citizens
1962	138	103 (74.6%)	62 (44.9%)	865	706 (81.6%)
1975	133	116 (87.2%)	87 (65.4%)	980	868 (88.6%)

of the three country groups in terms of the percentage of other senior officers who were Canadian citizens.

Summary

In summary, the author's 1975 data compared with the 1962 data from the Statistics Canada survey show that a substantial increase occurred in the participation of Canadian residents and citizens in the management of foreign-owned subsidiaries in Canada. Presidents residing in Canada increased from 75% to 87%, and presidents who

were Canadian citizens increased from 45% to 65%. Other senior officers who were Canadian citizens increased from 82% to 89%.

The author's survey shows, in addition, that the length of time a subsidiary has been in Canada, and the industry to which it belongs, are significant factors in determining the extent of Canadian participation in senior management. Size of firm, and perhaps also country of parent, appear to be significant in relation to nationality of presidents, with larger firms and U.S. subsidiaries making greater use of Canadians in the top position.



Canadian equity in foreign-owned firms

by Radek Bandzierz

Many Canadian investors have shown by their actions that they think that Canadian equity participation in foreign-controlled businesses in this country makes sense. When they have had the opportunity, they have increased their stake in such businesses. A recent survey by the author of selected foreign-owned corporations which were listed on Canadian stock exchanges has shown that Canadian equity participation increased in 71 percent of the firms between 1965 and 1975; almost one-half of the companies examined showed increases in equity ownership by Canadians of more than 10 percentage points. In fact, several of these increases resulted in Canadians acquiring majority ownership from foreigners. The question is, therefore, not whether Canadians are increasing their equity participation, but how they are doing it.

Acquisition of shares

A primary vehicle for increases in Canadian equity ownership has been the acquisition of shares of foreign subsidiaries which list their stock for trading on Canadian stock exchanges. This was shown in a detailed analysis of selected Canadian-incorporated, foreign-controlled firms that were listed on the Toronto Stock Exchange (TSE) during the 1965-75 period. From the 893 firms listed on the TSE in December 1965, it was possible to identify 82 companies that were foreign-controlled in 1965 and for which 1975 ownership data were available. The data problems caused by name changes, corporate reorganizations and amalgamations seriously limit the size of the sample and, therefore, the breadth of the analysis. Nevertheless, the above-mentioned 82 firms do provide an interesting sample of apparent changes in the degree of Canadian ownership between 1965 and 1975 (Table 1).

Canadian equity ownership increased in 71 percent of the companies in the sample (58 firms) between 1965 and 1975. Only 29 percent of the firms showed either no change or a decrease in Canadian ownership. Table 2 shows that the ownership shifts had a significant effect on the ownership structures of the 58 firms in which Canadian equity participation increased.

The data show a pronounced movement from relatively small Canadian ownership levels to the "over 25 percent" level. In particular, 17 firms came under majority Canadian ownership or control by 1975; these included Alcan Aluminum Limited, Canadian Pacific Limited (transportation, real estate, telecommunications, mineral resources), De Havilland Aircraft Company of Canada Ltd., Hudson's Bay Company Ltd. (merchandising), Bramalea Consolidated Developments Ltd. (real estate) and INCO Ltd. (minerals), all of which are key corporations in their

respective industries in Canada.

Two other surveys confirmed these results. One, carried out by the author, showed that, by 1975, Canadian ownership increased in 55 percent of the foreign-controlled companies listing for the first time on the TSE between 1967 and 1973. Similar results were obtained for an earlier period by Professor G.R. Conway in "The Supply of, and Demand for, Canadian Equities" which was published in September 1968 by the Toronto Stock Exchange.

Between 1965 and 1975, majority Canadian ownership in several firms (e.g. INCO Ltd., Canadian Pacific Ltd. and Alcan Aluminum Ltd.) developed gradually not suddenly.

Reasons for increasing Canadian ownership

Majority foreign-owned firms have become majority Canadian-owned for several reasons. One of the more notable ownership transfers involved the Hudson's Bay Company, a major department store chain in Canada. In 1970, it transferred ownership to Canadians in order to correct foreign-exchange and taxation difficulties resulting from having most of its assets and earnings in Canada and its tax residence in Britain.

Certain Canadian government policies have also encouraged firms to become majority Canadian-owned. For example, the Mercantile Bank of Canada became majority Canadian-owned to comply with federal law concerning the ownership of chartered banks. Also, the Foreign Investment Review Act has had an effect. Major firms such as Bramalea Limited, Trizec Corporation, the large investment company Talcorp Associates Ltd. (formerly Slater, Walker of Canada), as well as such large firms as Dome Petroleum and Dome Mines Ltd., have all publicly stated that the Act was a primary factor in their decision to

ensure that controlling interests be held by Canadians.

Acquisition of firms

Acquisitions by Canadian-owned firms of all or part of foreign-owned firms have also contributed substantially to increased Canadian equity participation. For example, Fields Stores Limited of Vancouver was able to greatly increase its network of retail stores by acquiring a majority interest in Zellers Limited, which was previously owned by an American firm (more recently, a majority share in Zellers was acquired by the Hudson's Bay Company). Similarly, the 1976 acquisition by Les Entreprises de J. Armand Bombardier Ltée of Montreal of a majority share in MLW-Worthington Ltd., a railroad equipment manufacturer previously owned by Studebaker Worthington Inc. of the United States, enabled Bombardier to diversify its transportation products. A more recent example would be the acquisition by Alberta Gas Trunk Line Co. Ltd. of a controlling interest in Husky Oil Ltd. in order to diversify and expand into other areas of the petroleum sector.

Publicly-owned firms have also been active in the purchasing of equity. Among the more important were the Canada Development Corporation's acquisition of a controlling interest in Texasgulf Inc., a large mining and mineral company with major assets in Canada, and the Government purchase of the De Havilland Aircraft Company of Canada Ltd. and Canadair Ltd., with a view to possibly merging the two operations and subsequently reselling them to private investors.

This article has shown that Canadian equity participation in foreign subsidiaries, which are listed on Canadian stock exchanges, has increased considerably since 1965. These changes have been motivated by a variety of business and

other considerations and reflect a willingness of Canadians to invest in foreign-controlled firms in Canada, whenever sound equity ownership opportunities are available.

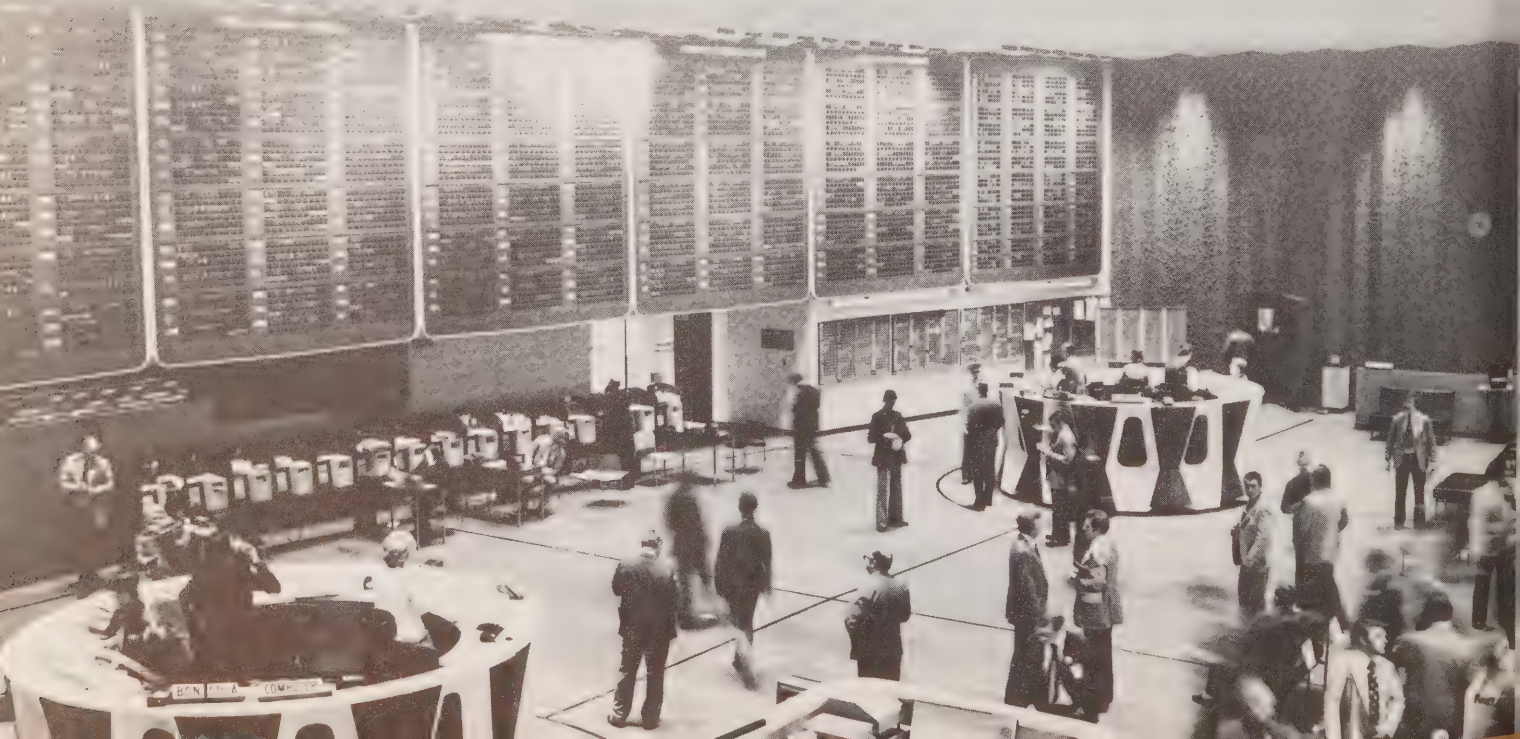
Table 1
Degree of Change in Canadian Ownership of Voting Equity
1965-1975

Changes in Canadian Ownership ^a (Percentage points)	Number of Companies			
	Increase	Decrease	No Change	Total
0	-	-	3	3
0.1 - 10.0	18	9	-	27
10.1 - 25.0	22	9	-	31
25.1 - 50.0	13	3	-	16
50 and over	5	0	-	5
	58	21	3	82

^a These are percentage-point changes in Canadian ownership, not overall percentage changes.

Table 2
Structure of Ownership in 58 Companies, 1965 and 1975

Voting Stock Owned by Canadians (Percent)	Number of companies	
	1965	1975
0	5	-
0.1 - 10.0	10	2
10.1 - 25.0	12	8
25.1 - 50.0	27	27
50 and over	4	21
	58	58



Small business in Canada

Large firms are now the most dominant form of business enterprise in most countries of the world, including Canada, and we are sometimes inclined to forget that this is a comparatively recent development. The Industrial Revolution was accomplished largely through small-scale industries — entities with modest capital, a few score workers at most, owned and managed by a single individual or family. Really large-scale organizations were slow to emerge and their explosive growth did not take place until the first half of the present century. In addition, since Confederation, Canada has had an import-export oriented economy often necessitating fairly large-scale production units. However, in recent years there has emerged a renewed interest in and appreciation of the value of smaller and medium-sized enterprises and efforts have been made to provide more encouragement and a better climate for small business generally. It is hoped that this will provide benefits, such as less need to import, and greater decentralization of economic activity in Canada. At the same time, it may be possible to strengthen local and regional values and this would allow individuals to have a greater sense of identity with their communities.

The importance of small business

Small businesses are an essential link in the Canadian economy. They serve the consumer and meet the needs of other businesses, large and small. While they may not be able to match the variety and volume of large firms, they can compete on price, service and location or in specialized segments of particular markets, thereby increasing the range of available alternatives. They may not produce most of the goods they provide but they sell many finished products and provide a broad range of services. In Canada, small businesses represent between 800,000 and 900,000 enterprises and between 80 per cent and 90 per cent of all businesses. They employ about 20 per cent of the labour force and account for about 20 per cent of all goods and services.

Small businesses have important social and economic significance. They are, for the most part, relatively labour intensive and often generate more direct and probably more indirect jobs per unit of invested capital on the average than larger firms. The strengthening and proliferation of small business in Canada's towns and villages serves in fact to some extent to stem the flow of young Canadians in search of employment to major urban centres, a movement which has made Canada one of the most urbanized countries in the world. Further, an increase in the number and variety of smaller enterprises might prove to be the salvation of those less-diversified centres which face serious difficulties when major employers find it necessary to cease or reduce operations.

It has also been argued that the smaller size and dispersion of small businesses, their lesser needs for massive infrastructure and their simpler processes result in less risk to the environment. Small businesses are frequently less energy and capital intensive and, by locating close to the ultimate market, they can often enjoy lower transportation costs. Small businesses also often provide a setting conducive to entrepreneurial and technological innovation. They provide productive outlets for the talents and energies of enterprising and independent people, many of whom might not reach their potential in large organizations. Their dynamism contributes to competition. In many countries, small firms provide parts and sub-assemblies to large firms at considerably lower unit costs than if the latter were to produce them themselves.

Finally, the quality of community life in Canada is undoubtedly enhanced by the small business sector. By nature, entrepreneurs possess self-confidence, determination and optimism, qualities which invariably carry over in terms of active support for civic endeavours of all types. Small businesses and the people who own and operate them, have for generations been the backbone of countless communities across the country.

The financing of small business

Since established firms can obtain financing from commercial institutions, and a number of government agencies exist to help meet the needs of those whom commercial lenders find they cannot accommodate, financing may not

Excerpt from The Commercial Letter of The Canadian Imperial Bank of Commerce, Issue No. 2, 1978. The Canadian Imperial Bank of Commerce is a leading chartered bank with 1,853 Canadian and foreign branches and offices and assets of \$38.3 billion.

PROFILE OF SMALL BUSINESS IN CANADA, 1974

Sales Class (\$000's)	Number of Businesses				Total Sales (Millions of dollars)				Return on Sales (percent)			
	All		Small Businesses		All		Small Businesses		All		Small Businesses	
	Busi- nesses in Canada	Less than \$50	\$50- \$250	\$250- \$1000	Busi- nesses in Canada	Less than \$50	\$50- \$250	\$250- \$1000	Busi- nesses in Canada	Less than \$50	\$50- \$250	\$250- \$1000
Primary Manufacturing	15,701	4,221	4,596	3,493	56,740	87	575	1,824	9.7	15.8	6.1	6.2
Secondary Manufacturing	22,693	7,823	6,721	4,179	40,950	173	816	2,176	8.0	17.1	6.6	4.3
Transportation	50,659	39,363	8,041	2,326	12,155	725	831	1,114	6.8	25.6	8.7	4.9
Construction	90,120	52,237	25,710	8,925	19,466	1,063	2,856	4,323	7.0	30.8	10.2	5.6
Wholesale Trade	53,980	22,829	14,448	9,666	52,118	439	1,762	5,054	4.5	14.6	7.9	5.1
Retail Trade	136,738	50,380	61,652	19,585	47,782	1,122	7,431	8,764	5.5	15.5	7.1	4.2
Services	116,756	75,188	32,041	7,802	15,260	1,413	3,462	3,547	10.5	14.1	12.7	6.0
Finance	74,503	46,937	19,778	5,865	24,850	773	2,171	2,700	17.3	33.8	22.0	19.0
Other	52,897	33,403	14,844	3,323	24,853	584	1,552	1,524	18.8	23.3	8.5	7.5
Total	614,047	332,381	187,831	65,164	294,174	6,379	21,456	31,024	9.0	23.7	10.1	6.3

appear to be a principal stumbling block confronting small business in Canada. Nevertheless, many small businessmen find it difficult to arrange adequate financing. Many cannot meet the requirements of those who supply funds. Others have difficulty in identifying sources of assistance. Managers of small enterprises often do not know how to approach financial institutions. The planning and forecasting involved in preparing a presentation is often beyond their skills. Also, their timing is frequently wrong. They wait until their problem has reached panic proportions and then cannot understand why the potential lenders are unable to meet their needs.

Part of the financing problem is the relatively minor role of the venture capital market in Canada in providing financing in various forms for start-up, development or expansion purposes. Canadian tax regulations appear to be reducing the flow of risk capital for the establishment of new ventures. The trend away from personal investment in equities appears to be in large measure a result of the 1971 taxation changes in Canada. The impact of these changes has been a shift in emphasis from seeking capital gains to investment in tax-sheltered or tax-free situations. Tax incentives generally encourage savers to put their money into government bonds, guaranteed investment certificates, or insurance or pension funds rather than into the equity of new ventures. Discretionary wealth, which, a generation or two ago, might have been invested in new, small business, is increasingly drained off into government treasuries.

Venture capitalists claim that the risks of investing have risen with a corresponding increase in the rewards. One reason is the growing imbalance between the public and private sectors. Another is the lower after-tax rate of return. The capital gains tax

makes no distinction between blue chips and high-risk stocks. Venture capitalists often find it extremely difficult to get out of certain stocks, so they are very cautious about getting involved in risky, though interesting propositions. Since the late 1960's, the stock market has not been receptive to junior underwritings and it has become almost impossible for small, privately-held companies to go public through a securities issue. Nor can a company be sold to foreign investors who fail to qualify under the Foreign Investment Review Act. In order to overcome the difficulties involved in recycling their risk capital, many venture capitalists are placing more emphasis on debt financing and are demanding firm repayment schedules.

While the chartered banks understand the requirements of small business for financial services well and have been willing to supply term funds, their efforts have been constrained, to an appreciable extent, by influences beyond their control. Until the early part of last year, the Small Business Loans Act formula, under which interest rates are determined on certain small business loans, resulted in rates that frequently prevented the banks from covering their costs. Since the formula was changed, however, there has been an increase in the volume of these loans. Many small businessmen are also sometimes reluctant to share enough information with the banks to enable them to follow the borrower's affairs constructively. As custodians of public saving, the banks are naturally most concerned with the protection of capital, and prudence prevents them from taking immoderate risks with other people's money.

As the chartered banks have perceived a need in Canada for additional financial services to small business, they have taken steps to meet these needs. In addition to

their already considerable financing of smaller enterprises, several banks have acquired affiliations with venture capital companies. This has enabled them to refer customers to further sources of financial assistance. The introduction of bank charge cards has greatly enhanced the convenience of shopping at small outlets. It has also enabled small businessmen to compete more effectively with large department stores and chain store outlets.

In the course of lending funds to small businesses the chartered banks perform a number of related functions. Customers are kept aware of business opportunities as well as the growing diversity of services available through the local branch network. Some banks have conducted financial management seminars for local small businesses. The banks are also sometimes able to offer special services, such as leasing and factoring, to the small businessman.

Small business and government

The growing interest of a number of influential groups, particularly business associations, in the health and long-term prospects of small business in Canada resulted in the appointment in 1976 of a Minister of State for Small Business. Provincial governments have also begun to recognize some of the significant problems of small businesses and have introduced tax incentives and other programs specifically aimed to help them.

In April 1977, the federal government launched its Enterprise Development Program (EDP) for small and medium-sized businesses, replacing a number of existing programs. The program is intended to promote growth in the manufacturing and processing sectors of the economy by taking a "merchant" banking approach to selected small firms. A merchant bank can

be defined as a financial institution serving its clients by identifying, structuring and providing all the financing and financial management services required to realize a firm's full potential. The program consists of grants for a variety of uses, including the cost of proving a project's eligibility for assistance, studies on market potential, productivity improvement, industrial design, and so on.

More recently, a number of new measures aimed at assisting the small business have been announced by the federal government. Changes raising the threshold above which manufacturers are required to pay the federal sales tax will mean that fewer companies will have to pay the tax and the number of times other small manufacturers must file returns is being reduced. Steps are also being taken to speed up payment for goods and services supplied by firms to the federal government and to require large bidders for government contracts to submit in their tenders or proposals a plan for subcontracting work to smaller firms. A sourcing list will be maintained to help small businesses market their products and bulletins on marketing opportunities and technological developments of interest to small business will be prepared and evaluated.

Reduction in the considerable time, money and effort spent each year by Canadian business on the "paper burden" continues to be a top priority. Programs have been introduced by Statistics Canada to streamline reporting requirements and the paperwork required when applying for small business loans has similarly been reduced.

The federal government has issued a White Paper outlining three initiatives designed to help small businesses obtain needed capital. It plans to:

- 1) increase the equity investment activities of the Crown-owned Federal Business Development Bank.
- 2) introduce tax measures to enhance the availability of risk capital to small business, and
- 3) allow the creation of venture enterprise investment companies (VEICS) with special tax breaks to create pools of venture capital.

The package also included proposed amendments to the Income Tax Act to permit the deferment of capital gains tax on the transfer of certain small business holdings from a parent to a child or grandchild. Changes are also to be made to

create a category to be known as "allowable business investment loss". Under the terms of this provision, allowable capital losses on shares or debts of Canadian-controlled private corporations will be deductible for tax purposes against income from any source.

Conclusion

It will be seen that small business is of important social and economic significance to Canada and that this importance is receiving increasing recognition. While it will never be possible to provide answers to all the problems inherent in entrepreneurship, the growing diversity of aids to small business will ensure that many more Canadians will be in a position to take advantage of its challenges and satisfactions. The coming decades will likely be periods of rapid change and this will widen the opportunities for small businesses. Because of their flexibility and ability to innovate, small businesses tend to be well suited to a changing environment. Given a continuation of the present climate, this important segment of the business community would seem assured of a viable future.



Capital investment projects in Canada

II. Manufacturing and forest industries

This list shows major capital spending projects now in progress or firmly committed in the manufacturing and forest industries sectors. Only projects costing over \$10 million are included. Other sectors will be covered in subsequent issues of Foreign Investment Review. Information on these projects has been obtained mainly from press reports verified, where necessary, by the companies concerned.

This report was prepared for the Foreign Investment Review by L. E. Dewis, Analyst with the Capital Expenditures Group, Economic Analysis Branch, Department of Industry, Trade and Commerce.

Capital spending in the manufacturing sector is expected to increase substantially in the 1979-80 period. A recent survey of large firms carried out by Industry, Trade and Commerce reports manufacturing firms are expecting to increase their capital expenditures in the 1979 period by about 13.1 percent in real terms. The largest increases are expected in food and beverage and transportation equipment companies.

For the forest industry sector, surveys by both Pulp & Paper Canada and Industry, Trade and Commerce indicate that capital spending will exceed \$1 billion this year.

The large capital expenditures listed below, which are compiled from public sources, cover woodlands operations as well as mill production facilities and pollution abatement. The cost shown is the total project cost, which is often spread over several years. In addition to these projects, companies in the industry are spending substantial sums annually on smaller expansion or renovation projects. For example, companies like Crown Zellerbach Canada Ltd. and MacMillan Bloedel Ltd. in British Columbia, Consolidated-Bathurst Ltd. and Abitibi Ltd. in Quebec and Ontario, have large expansion programs underway, however, only the largest individual projects are included in this list.

Company and project description	Completion date	Cost (\$ million)	Location
British Columbia			
Dow Chemical of Canada Ltd. Chemical distribution centre	1979	10.0	Ladner
Fiberglas Canada Ltd. New glass fibre insulation plant	1980	25.0	Mission
Tree Island Steel Co. Ltd. New rolling mill	1979	50.0	Richmond
British Columbia Forest Products Ltd. Improvements	1979	41.0	Crofton
Canadian Forest Products Ltd. Modernization program	1979	25.0	Vancouver
Crown Zellerbach Canada Ltd. Thermomechanical pulping	1979	26.6	Campbell River
Hog fuel boiler	1980	24.2	Campbell River
Expansion, pulp and paper	1983	150.0	Campbell River
Doman Industries Ltd. New sawmill	1979	30.0	Nanaimo
Fraser Lake Sawmills Ltd. New sawmill	1979	14.4	Fraserdale
Houston Forest Products Ltd. New sawmill complex	1979	20.0	Houston
MacMillan Bloedel Ltd. Modernization program	1983	450.0	Port Alberni
Tahsis Co. Ltd. Sawmill improvements	1981	20.0	Vancouver Island
Prairie Region			
Alberta Gas Chemicals Ltd. Methanol plant	1982	50.0	Medicine Hat, Alta.
Alberta Wheat Pool Rapeseed oil processing plant	1979	15.0	Fort Saskatchewan, Alta.
Canada Cement Lafarge Ltd. Expansion program	1980	70.0	Exshaw, Alta.
Canadian Industries Limited Polyethylene plant expansion	1981	45.0	Edmonton, Alta.
Abitibi Paper Company Ltd. Thermal-chemical-mechanical pulping system	1979	26.0	Thunder Bay

Celanese Canada Ltd. Vinyl acetate monomer plant	1979	23.0	Edmonton, Alta.
Diamond Shamrock Alberta Ltd. Polyvinyl chloride plant	1979	50.0	Fort Saskatchewan, Alta.
Dow Chemical of Canada Ltd. Ethylene glycol plant	1979	95.0	Fort Saskatchewan, Alta.
Earth Sciences Inc. Uranium oxide facility	1979	12.5	Calgary, Alta.
Eldorado Nuclear Ltd. Expansion	1979	45.0	Radium City, Sask.
Inland Cement Industries Ltd. New cement plant	1980	60.0	Edmonton, Alta.
Interprovincial Steel and Pipe Corp. Ltd. Expansion	1980	45.0	Regina, Sask.
Molson Companies Ltd. Brewery expansion	1983	24.0	Edmonton, Alta.
Westroc Industries Ltd. Gypsum wallboard plant	1979	13.0	Calgary, Alta.
North Western Pulp & Power Ltd. Pollution control program	1979	35.0	Hinton, Alta.
Procter & Gamble Cellulose, Ltd. New saw mill	1980	15.0	Grande Prairie, Alta.

Ontario

Algoma Steel Corporation Expansion of seamless tube plant	1979	18.8	Sault Ste. Marie
Heat-treating line, wide plate mill	1980	24.0	
Canada Starch Co. Ltd. Addition to corn syrup plant	1979	12.0	Cardinal
Canadian Industries Ltd. Expansion urea production unit	1980	18.0	Lambeth
Consumers Glass Co. Ltd. Glass container plant	1980	20.0	Milton
Erco Industries Ltd. Sodium chlorate plant	1979	11.0	Thunder Bay
Fiberglas Canada Ltd. New plant, fiberglass products	1979	25.0	Scarborough
Firestone Steel Products of Canada Expansion	1981	20.0	London
Ford Motor Company of Canada Ltd. New engine plant	1981	533.0	Windsor
Inco Ltd. Electric motor winding shop	1979	29.0	Copper Cliff
Lake Ontario Steel Co. Ltd. Expansion	1980	85.0	Whitby
William Neilson Ltd. Modernization	1981	12.0	Toronto
Photo Engravers & Electrotypers Ltd. Modernization	1980	10.4	Toronto
Redpath Industries and John Labatt Ltd. Corn sweetener plant	1980	60.0	London
Stanley Steel Company Ltd. New rolling mill	1980	10.0	Hamilton
The Steel Company of Canada Ltd. New steel plant	1981	1,250.0	Nanticoke
Uniroyal Limited Expansion of tire manufacturing plant	1979	13.0	Kitchener

American Can of Canada Ltd. Modernization of bleached kraft pulp mill	1979	26.0	Marathon
Domtar Inc. Expansion, gypsum wallboard plant	1979	22.0	Caledonia
E.B. Eddy Forest Products Ltd. Modernization and pollution control	n.a.	15.5	Espanola
Reed Paper Ltd. Expansion and pollution control	1983	40.0	Dryden
Spruce Falls Power and Paper Co. Ltd. Modernization program	1983	70.0	Kapuskasing

Quebec

Bilopage Inc. Frozen foods plant	1979	15.0	Quebec City
Canada Packers Ltd. Expansion of edible oil refinery	1980	15.0	Point St. Charles
Carling O'Keefe Ltd. Brewery expansion	1980	22.5	Montreal
Chromasco Limited Plant to produce magnesium	1980	40.0	Montreal
Co-Operative Agricole de Granby Dairy processing complex	1979	22.0	Granby
General Motors of Canada New plant to manufacture buses	1979	36.0	St. Eustache
Quénord Chemicals Ltd. Sodium chlorate plant	1980	16.2	Magog
Uniracor Ltd. Pipe fittings plant	1980	31.0	Bécancour
Valcartier Industries Inc. Modernization, small arms plant	1983	18.0	Valcartier
Canadian International Paper Co. Ltd. Pulp mill expansion	1979	24.0	Gatineau
Consolidated-Bathurst Ltd. Improvements to pulp mill	1979	29.0	Port Alfred
Kruger Pulp & Paper Ltd. Expansion of coated paper mill	1980	18.0	Trois-Rivières
Métallurgie Farnham Inc. New iron foundry	1979	16.5	Farnham
Price Co. Ltd. Mill conversion	1980	32.0	Kenogami
Tembec Forest Products Inc. Mill improvements	1981	12.0	Témiscaming

Atlantic Region

National Sea Products Ltd. Fish processing plants	1980	11.0	Arnolds Cove, Nfld. Lunenburg, N.S.
Michelin Tires Manufacturing Co. of Canada Ltd. Expansion tire manufacturing	1979	25.0	Granton, N.S. Bridgewater, N.S.
Sydney Steel Corporation Renovations	1979	19.0	Sydney, N.S.
Abitibi Paper Company Ltd. Mill reopening and conversion	1981	70.0	Stephenville, Nfld.
Fraser Companies Ltd. Renovations to pulp mill	1979	91.5	Edmundston, N.B.
Nova Scotia Government Forest management program	1983	20.0	Nova Scotia
Ontario Minnesota Pulp & Paper Co. Ltd. Pulp mill improvements	1980	35.0	Newcastle, N.B.
Ste. Anne-Nackawic Pulp & Paper Co. Ltd. New plant for pulp bleaching chemicals	1979	13.0	Nackawic, N.B.

Incentives to Industry

Federal Incentives

Over the past several years Canadian governments have been building up a system of incentives designed to stimulate and encourage business capital spending and investor confidence. These measures foster a number of economic objectives such as regional development, industrial expansion, international competitiveness and research and development. For example, in the federal budget of November 1978 the Minister of Finance proposed a number of measures intended to improve efficiency, lower costs and promote balanced regional development. The major tax incentives to investment include:

Investment tax credit

An investment tax credit which varies regionally from 7 percent to 20 percent is available as a direct reduction from federal tax payable. This credit reduces the cost of most new buildings, machinery and equipment used in manufacturing and processing. In 1978 it was extended to expenditures on scientific research and development and to investment in equipment for rail, air, water and long haul transport. The credit is limited in any one year to \$15,000 plus one-half federal tax payable in excess of \$15,000, but any unused credits may be carried forward for 5 years, subject to the same annual limits. In 1978 this tax credit was extended indefinitely beyond its scheduled expiry date.

Research and development incentives

In 1978 the investment tax credit for R & D expenditures was raised to 20 percent in the Atlantic Provinces and 10 percent in the rest of Canada, while small businesses were allowed a special R & D tax credit of 25 percent. In addition to writing off 100 percent of current and capital expenditures for R & D, taxpayers can deduct from their income a further 50 percent of any increase in such expenditure over the average level of the previous three years.

Accelerated capital cost allowance for manufacturing and processing industries

Taxpayers may charge a 50 percent straight line of depreciation on most new machinery and equipment for use in manufacturing and processing (including

heavy-oil upgrading) thus writing off such assets in two years.

Inventory allowance

In recognition of the distortion of business income from inventory inflation, 3 percent of the opening cost of inventories (except real property and goods not for resale) can be deducted in calculating business income.

Special rate for manufacturing and processing profits

A special rate of tax on manufacturing and processing activities (including heavy-oil upgrading) reduces the general rate on corporate profits from 36 percent to 30 percent. Provincial corporate tax rates ranging from 10 percent to 15 percent are levied in addition to the applicable federal rate.

Special tax rates for small businesses

Smaller enterprises are accorded lower income tax rates up to a specified amount of cumulative earnings. The rate is 20 percent in manufacturing and processing industries and 25 percent in other activities. These lower rates are applicable to the first \$150,000 of taxable income to a maximum of \$750,000.

Employment tax credit

Employers hiring unemployed workers to fill newly created jobs which are additional to their normal work force may be entitled to a tax credit which varies regionally.

Oil and gas exploration incentives

A variety of incentives encourage oil and gas and other mineral exploration and development in Canada.

In addition to fiscal incentives, federal and provincial governments have established a number of industrial assistance programs designed to encourage industrial development generally or to attract enterprises to particular areas. Provincial government programs will be described in the next issue of Foreign Investment Review. The major federal programs are outlined below.

DEPARTMENT OF REGIONAL ECONOMIC EXPANSION

The Department offers cash incentives or loan guarantees to firms that set up business in the designated regions. These regions include Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, Quebec (except for Hull and its environs), Northern Ontario, Northern Alberta, Northern British Columbia and the Northwest Territories.

Most manufacturing and processing firms are eligible for the development incentives and loan guarantees. Facilities for primary processing — oil refining and certain pulp and paper industry activities — and commercial facilities are not eligible. However, loan guarantees may be offered to business offices, warehousing and freight handling facilities, shopping centres, convention facilities, hotels and motels, recreation centres and research establishments.

Incentives for the construction of new facilities or the expansion of existing ones to produce new products are equal to 25 percent of the investment value plus a percentage (15 or 30 percent) of the wages depending on the host region. Incentives for modernizing facilities or increasing production capacity are equal to 20 percent of the investment. Large-scale projects entailing investments of at least \$1.5 million and the creation of at least 100 jobs are reviewed in light of their benefits and needs. The Department guarantees loans made to service firms in order to help them obtain favorable financing terms. **Contact:** *Industrial Incentives Branch, Department*

of Regional Economic Expansion, Ottawa, Ontario, Canada K1A 0M4.

The Department of Regional Economic Expansion also has an incentive program for businesses wanting to establish themselves in the Montreal Region. The incentives are based on approved capital costs. The amount offered varies with the nature of the project and the location. The maximum level of an incentive is 25 percent of the approved capital costs in the case of a new facility and 20 percent in the case of modernization or expansion projects. Only the industries involved in the following activities are eligible for the incentives: food industries dealing in prepared and quick frozen food; metal fabricating; machinery; transportation and equipment; electrical products; chemicals and chemical products; scientific and professional equipment; and, sporting goods and toys. **Contact:** *Department of Regional Economic Expansion, Tour de la Bourse, 300 Place Victoria, C.P. 247, Montreal, Quebec, Canada H4Z 1E8*

DEPARTMENT OF INDUSTRY, TRADE AND COMMERCE

Enterprise Development Program (EDP)

This program assists small- and medium-sized manufacturing and processing business to become more viable and internationally competitive. Though it was introduced only two years ago as an amalgamation of seven existing programs, it has already helped many firms. In 1977-1978 alone, 265 projects were authorized with the assistance amounting to \$125 million. In the first 6 months of this fiscal year, over \$100 million had been offered to Canadian businesses. During the next five years, the program is expected to make payments of over \$1.3 billion to Canadian firms.

In order to receive assistance, the applicant must develop and submit a plan that shows how the project will affect the firm's viability. EDP officers analyze the firm's resources (human, financial, physical and technological), the potential and limits of the market, and the plans for deploying the resources and penetrating the Canadian and foreign markets. The results of the analysis are submitted for approval to the Enterprise Development Board, which is composed of businessmen and public servants.

The two main forms of assistance are cost-sharing and loan insurance. Cost-sharing is available for marketing and productivity studies, and innovation and design projects. Loan insurance is generally used for the expansion or modernization of facilities, working capital, mergers and acquisitions.

The eligibility criteria focus on the viability of the firm and project and on the firm's ability to finance its projects. As for cost-sharing, the activities must represent a heavy financial burden for the firm when compared with its resources. Loan insurance is provided on a last-resort basis to firms unable to obtain debt capital on reasonable terms and conditions. Firms seeking loan insurance must have called upon other institutions such as the Federal Business Development Bank before applying to the Department.

Manufacturing and processing firms are generally eligible for all forms of assistance offered by the program. Firms in the service sector can obtain loan insurance if they can demonstrate that their services will produce a direct, tangible and substantial benefit for manufacturing and processing firms. **Contact:** *Enterprise Development Board, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.*

Program for Export Market Development (PEMD)

The purpose of the program is to help Canadian suppliers penetrate new export markets or increase their exports. Financial assistance is provided in the form of a repayable loan (in the event of success) for eligible expenses: 1) when a firm presents bids involving unusually large and complex capital expenditures; 2) in cases of exceptional international competition; and 3) for establishing a consortium to respond to demand in foreign markets.

The program has five sections offering a wide range of assistance designed to meet the needs of industry. The program encourages participation in major projects abroad, export market identification or adjustment, trade fairs abroad, trips to Canada by potential buyers and the formation of export consortia. About 2,000 firms use this assistance program each year. **Contact:** *Program for Export Market Development, Department of Industry,*

Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Small Businesses Loans Act

The Department of Industry, Trade and Commerce guarantees loans made to small businesses whose gross annual income does not exceed \$1.5 million during the year in which the loan is made or, in the case of a new firm, if the estimated income in the first financial period — at least 55 weeks — does not exceed \$1.5 million. Last year, more than five thousand firms used this program to borrow over \$90 million.

All chartered banks, Alberta Treasury Branches and designated financial institutions — credit unions, trust, loan, insurance and finance companies — are authorized to make loans under the provisions of the Act.

Loans may be authorized to finance the cost of stationary and transportation equipment, building and land necessary for operating a commercial venture and construction, installation, renovation, improvement or modernization of facilities.

The maximum rate of interest payable on SBLA loans is one percent over the prime lending rates of the chartered banks. The repayment period may not exceed 10 years. The terms of the loan are settled between the lender and the applicant without prior reference to the government. The amount to be repaid may not exceed \$75,000 and the applicants must invest a reasonable portion of the purchasing cost out of their own resources. **Contact:** *Bank manager or the Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.*

Machinery Program

This program provides for the remission of customs duties on imports of machinery not manufactured in Canada but of vital importance for the firm. Last year, Canadian manufacturers were reimbursed over \$225 million. **Contact:** *Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.*

Other programs

Other programs have been developed for shipbuilding, trade fairs and missions,

defence production, footwear and tanning, fashion, and export growth and development. **Contact:** *Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5*

EXPORT DEVELOPMENT CORPORATION (EDC)

The Corporation provides financial assistance for Canadian export business by means of insurance, loans, guarantees and other services. In 1978, the value of the EDC's financial assistance was almost \$6 billion.

The EDC has extensive powers for helping all firms in Canada, regardless of size, insuring them against non-payment by foreign buyers of Canadian goods and services in almost all export sectors.

Through its "Risk Protection" insurance, the EDC can insure financial institutions against calls on surety instruments provided on behalf of Canadian exporters and can insure consortium members against the possibility of non-performance by another member of the consortium. The EDC also extends long-term loans, or guarantees loans, to foreign buyers of Canadian goods and services. These loans are arranged in the private sector with interest rates which are the most competitive possible in the international market. The EDC offers this service when the foreign buyer needs long-term (five years or more) credit but cannot obtain it from private sources.

The EDC can insure Canadian firms investing abroad against political risks, including losses or damages resulting from expropriation, insurrection, war or the impossibility of converting profits or capital. Almost any interest an individual or firm can have in a business concern abroad is insurable, including shares, loans, contracts for administrative or technical services, royalties and licensing agreements. However, only new investments in developing countries are eligible for insurance at the present time, the main condition being that the investor maximize the benefits to be derived by Canada and the host country. **Contact:** *Export Development Corporation, 110 O'Connor Street, Ottawa, Ontario, Canada K1P 5T9.*

Canadian Commercial Corporation (CCC)

Each year, the CCC helps more than 400 Canadian firms make transactions abroad involving a wide range of products from advanced electronics systems to commercial supplies of every description. A good many of these purchases are destined for aid programs of the Canadian International Development Agency (CIDA).

In many cases, the CCC is able to link Canadian suppliers with the purchasing services of foreign governments and international agencies, which are significant markets for Canadian firms. Thousands of bids can be submitted in this way each year. **Contact:** *Canadian Commercial Corporation, 110 O'Connor Street, Ottawa, Ontario, Canada K1A 0S6.*

FEDERAL BUSINESS DEVELOPMENT BANK

The Federal Business Development Bank, a Crown corporation, offers financial assistance to businesses who cannot find it elsewhere on reasonable terms and conditions. The Bank is directed to give particular consideration to the needs of small businesses.

The Bank's assistance may take the form of loans, loan guarantees, share capital or a combination of these, according to what best suits the special needs of the firm. The loans, normally guaranteed against fixed assets, are extended at market rates. In 1977-78, the Bank authorized nearly 10,000 loans valued at over \$479 million. As for the share-capital program, the Bank usually takes a minority position and agrees to have its shares bought back on suitable terms. The total value of the loans authorized by the Bank amounts to approximately \$1.68 billion.

Most of the Bank's customers spend the money they obtain in purchasing land, buildings or equipment. Others use it to augment their firm's working capital, to start up new firms or for other purposes.

In addition to the financial assistance, the Federal Business Development Bank offers a management consulting, management training and information services to small businesses. **Contact:** *Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.*

Statistical tables

REVIEWABLE ACQUISITION CASES

Table 1 — Outcome or Status

	1974*	1975	1976	1977	1978 ^a
Reviewable new cases	102	166	171	261	360
Carryover from previous period	-	52	54	65	73
Total of above	102	218	225	326	433
Total resolved	50	164	160	253	327
Allowed	33	116	124	231	282
Disallowed	8	21	19	12	28
Withdrawn	9	27	17	10	17
Carried over to next period	52	54	65	73	106
Allowed cases as percent of resolved (%)	66	71	78	91	86
Value of assets, all cases (\$000,000)	479	1,070	1,069	1,145	4,491

Table 2 — Country of Control

	1974*	1975	1976	1977	1978 ^a
Total	102	166	171	261	360
United States	61	116	109	171	243
United Kingdom	21	15	23	40	47
Other Europe	15	27	34	41	52
Belgium	1	2	1	2	1
Denmark	-	-	-	2	1
France	3	6	6	6	5
Germany, West	5	2	10	15	17
Italy	-	2	1	3	1
Liechtenstein	2	2	-	-	1
Luxembourg	-	-	3	-	1
Netherlands	-	5	-	4	8
Norway	-	1	-	-	1
Sweden	-	2	9	2	7
Switzerland	4	5	4	7	9
All other	5	8	5	9	18
Australia	2	1	-	1	-
Bermuda	-	2	1	-	-
Japan	2	2	3	3	7
Others	1	3	1	5	11
Allowed cases as percent of resolved	%	%	%	%	%
United States	65	77	73	91	87
United Kingdom	70	79	82	95	78
Other Europe	71	50	86	90	89
All other	50	30	100	80	80

Table 3 — Industrial Sector

	1974*	1975	1976	1977	1978 ^a
Total	102	166	171	261	360
Primary	15	18	15	20	30
Agriculture, fishing and trapping	2	1	2	4	5
Forestry	3	1	-	1	1
Mines, quarries, oil wells	10	16	13	15	24
Manufacturing	47	82	93	108	161
Food, beverage and tobacco	6	11	9	15	15
Rubber, plastic and leather	3	3	4	6	12
Textiles, knitting and clothing	3	3	3	5	4
Wood, furniture and paper	6	10	7	12	14
Printing, publishing, and allied	-	3	1	2	4
Primary metal and metal fabrication	2	9	19	12	20
Machinery and transport equipment	13	17	7	14	27
Electrical products	1	9	11	12	16
Non metallic mineral products	8	3	9	5	8
Petroleum and coal products	-	-	2	1	1
Chemical	3	11	15	10	22
Miscellaneous	2	3	6	14	18
Construction and services	40	66	63	133	169
Construction	2	2	2	3	1
Transportation, communication, utilities	6	6	9	10	11
Trade	18	37	38	72	102
Finance, insurance, real estate	10	14	8	15	19
Community, business, personal services	4	7	6	33	36

* Provision for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES

Table 4 — Outcome or Status

	1975	1976	1977	1978 ^a
Reviewable new cases	6	196	328	331
Carryover from previous period	-	6	58	52
Total of above	6	202	386	383
Total resolved	-	144	334	319
Allowed	-	115	297	273
Disallowed	-	9	12	21
Withdrawn	-	20	25	25
Carried over to next period	6	58	52	64
Allowed cases as percent of resolved (%)	-	80	89	86
Planned investment, all cases (\$000,000)	5	324	803	323

Table 5 — Country of Control

	1975	1976	1977	1978 ^a
Total	6	196	328	331
United States	4	90	184	193
United Kingdom	-	22	30	26
Other Europe	1	63	85	79
Austria	-	-	-	3
Belgium	-	1	-	1
Denmark	-	5	6	4
Finland	-	1	1	1
France	-	9	17	16
Germany, West	-	22	26	18
Greece	-	-	1	1
Ireland	-	-	-	1
Italy	1	9	10	10
Liechtenstein	-	2	-	-
Luxembourg	-	-	-	1
Monaco	-	-	1	-
Netherlands	-	2	3	1
Norway	-	-	3	3
Spain	-	1	-	2
Sweden	-	3	9	5
Switzerland	-	8	8	12
All other	1	21	29	33
Australia	-	2	3	3
Hong Kong	-	3	3	3
India	-	3	1	1
Japan	-	4	10	6
Others	1	9	12	20
Allowed cases as percent of resolved	%	%	%	%
United States	-	73	88	86
United Kingdom	-	93	82	85
Other Europe	-	80	95	87
All other	-	91	81	79

Table 6 — Industrial Sector

	1975	1976	1977	1978 ^a
Total	6	196	328	331
Primary	-	12	22	27
Agriculture, fishing and trapping	-	2	6	2
Forestry	-	-	2	2
Mines, quarries, oil wells	-	10	14	23
Manufacturing	2	67	94	99
Food, beverage and tobacco	-	3	7	6
Rubber, plastic and leather	-	4	5	5
Textiles, knitting and clothing	-	4	9	5
Wood, furniture and paper	1	5	5	6
Printing, publishing and allied	-	-	-	4
Primary metal and metal fabrication	1	15	19	12
Machinery and transportation equipment	-	6	19	19
Electrical products	-	7	5	7
Non metallic mineral products	-	3	5	6
Petroleum and coal products	-	-	-	-
Chemical	-	6	3	6
Miscellaneous	-	14	17	23
Construction and services	4	117	212	205
Construction	-	4	4	14
Transportation, communication, utilities	1	10	5	11
Trade	1	68	133	102
Finance, insurance, real estate	1	10	16	11
Community, business, personal services	1	25	54	67

* Provisions for review of new businesses came into force October 15, 1975.

Book list

International business and investment

Venture Capital in Europe Coutarelli, Spiro A.

New York: Praeger Publishers, Inc., 1977
(Praeger Special Studies in International Economics and Development)

Describes the institutional venture capitalists that are emerging in Europe — the role they play in providing needed long-term finance for small and medium-size business, their structure, investment policies and future possibilities.

Disappointing Marriage: A Study of the Gains from Merger

Meeks, G.
Cambridge: Cambridge University Press, 1977

This study of recent mergers in the United Kingdom finds no evidence that efficiency gains typically follow mergers and discusses the implications of that conclusion for state policy on mergers.

Accounting for Multinational Enterprise

Alhashim, Dhia D. and James W. Robertson
Indianapolis: Bobbs-Merrill Company, Inc., 1978

Business practitioners and academics examine some international accounting problems stemming from the operations of multinational corporations. The problem areas discussed include the variation in national accounting standards, conflicts in applying national tax rules to multinationals, accounting for exchange rate gains and losses and the role of the accountant in international business operation and ethics. First presented as part of a "Key Issues" lecture and dialogue series sponsored by International Telephone & Telegraph Corporation.

Human Resource Management in the Multinational Company

Desatnick, R.L. and M.L. Bennett
New York: Nichols Publishing, 1978

Drawing on techniques and procedures used successfully by a number of companies, the authors provide guidelines to international companies for dealing with complex relationships between local nationals, third country nationals and expatriates.

Canada: Business, investment, government policy

Canada's Capital Spending Requirements: Alternatives for the Future

Barrett, Charles A. et al.
Ottawa: The Conference Board in Canada, 1978

A description of capital spending and savings patterns in Canada over the last three decades and an assessment of capital requirements to 1982 on the basis of four different growth scenarios.

Industrial Relations in Canada: Towards a Better Understanding

Dodge, William, Leslie Ann Ferrari and Ann E. Jepson (editors)
Ottawa: The Conference Board in Canada, Compensation Research Centre, June 1978 (Canadian Studies No. 49)

Report of a round table meeting on issues in industrial relations and collective bargaining in Canada.

Business Investment (Issues and Alternatives — 1978)

Toronto: Ontario Economic Council, 1978

This study of the climate for private capital investment in Ontario, examines the political and economic factors that currently influence the level of investment and the outlook for investment in each major sector of the economy. Comprehensive tables provide historical and forecast data for Ontario and Canada as well as the results of a survey of business opinion about factors affecting investment decisions.

Profile of Canada: Social and Economic Projections

McCready, Gerald B.
Georgetown, Ont.: Irwin-Dorsey Limited, 1977

Focussing on ten "central areas of concern" — including population change, energy, education and business — the author describes current trends and outlines possible future directions.

Marketing Research in Canada: A Status Report

Wong, Kenneth B. and Randall G. Chapman
Ottawa: The Conference Board in Canada, 1978

A report on the current status of marketing research in Canadian organizations based on a sample survey of companies.

Uranium, Nuclear Power and Canada-U.S. Energy Relations

McIntyre, Hugh C.
Montreal: C.D. Howe Research Institute, 1978
(Canadian American Committee, Report No. 44)

A review of the supply-demand outlook for uranium in North America, the potential for sale of Canadian uranium to the United States and possible areas for Canada-U.S. co-operation.

Atlantic Canada Today

Halifax, N.S.: Atlantic Provinces Economic Council, 1977

Information about the present resources, industries and development programs in Atlantic Canada and some of the likely future developments in that region.

Canadian Directorship Practices: A Critical Self-Examination

Peterson, Susan assisted by Morris Heath
Ottawa: The Conference Board in Canada, 1977 (December)

Examines in detail the opinions of 50 members of the business community on the subject of corporate boards of directors in Canada. Subjects covered include selection criteria, role of CEO's, effectiveness and independence of boards, multiple directorships, frequency of meetings, retirement, special interest members and the role of directors of foreign-controlled subsidiaries.

The Canadian North

Hodgins, Bruce W. et al.
Scarborough (Ont.) and Englewood Cliffs (N.J.): Prentice-Hall, 1977

Papers and speeches on the economic and ecological future of the area.

Canada Has a Future

Drouin, Marie-Josée and B. Bruce-Biggs
Toronto: McClelland and Stewart Limited, 1978

An analysis of medium-term social and economic prospects, based on research by The Hudson Institute of Canada.

Canada's Trade Performance — 1960-1977 Volume 1: General Developments

Policy Analysis Branch, Department of Industry, Trade and Commerce
Ottawa: Department of Industry, Trade and Commerce, October 1978

This report examines the major developments that occurred in the composition and direction of Canada's external trade during a period of unprecedented growth.

Articles in previous issues:

- | | |
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| Vol. 1, No. 1 | Capital needs in Canadian mining, smelting and refining
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Business-government joint ventures in Canada
Mineral exploration in Canada: the needs and the prospects |
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When does a licensing agreement in Canada make sense?
Tax considerations for investment in Canada
The James Bay development: a photosketch
GATT trade talks: implications for investment in Canada |
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FIRA procedures: clarifying some legal issues
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FOREIGN INVESTMENT REVIEW

A journal on
investment conditions in

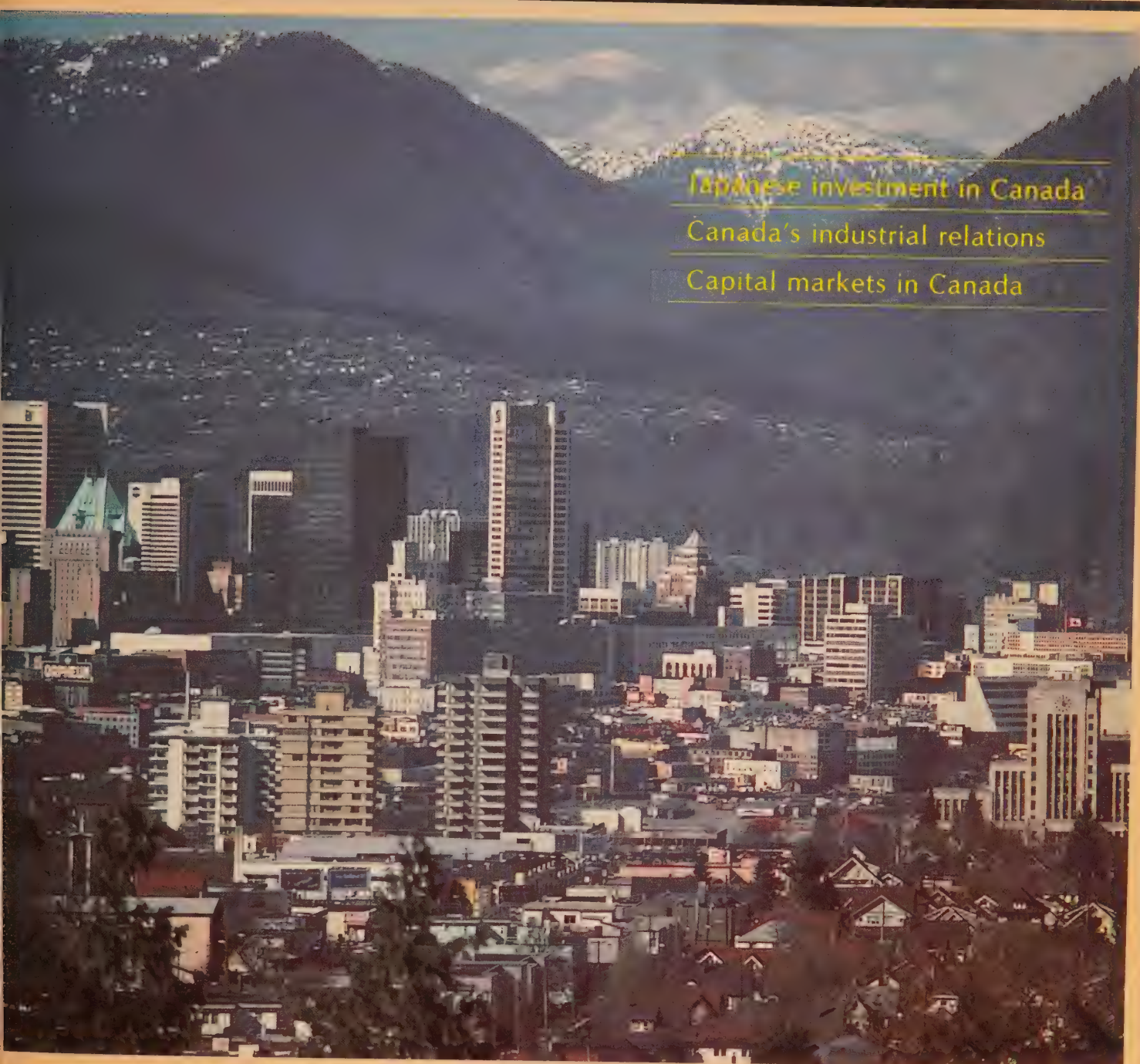
CANADA

Autumn 1979 Vol. 3, No. 1

Japanese investment in Canada

Canada's industrial relations

Capital markets in Canada





Foreign Investment REVIEW

a journal on investment conditions in
Canada

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Cover: With the majestic Rocky Mountains in the background, this is a view of
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New ministers named



Robert René de Cotret, Minister responsible for the administration of the Foreign Investment Review Act.

Following the May 22, 1979 election victory of the Progressive Conservative Party of Canada, a new Cabinet was formed in June. Among the new ministers named by Prime Minister Clark are: Robert René de Cotret, Minister of Industry, Trade and Commerce and Minister of Economic Development and Trade; Michael Wilson, Minister of State for International Trade; and Ronald Huntington, Minister of State for Small Business and Industry.

The Honourable Robert de Cotret, 35, replaces the Honourable Jack H. Horner as Minister responsible for the administration of the Foreign Investment Review Act. Mr. de Cotret, an economist, is a former President of the Conference Board in Canada, an independent business research organization. He has also worked as an adviser on monetary questions in the federal Department of Finance and as a senior staff economist with the President's Council of Economic Advisors in Washington, D.C.

The Honourable Michael Wilson, 42, Minister of State for International Trade, is former Executive Vice-President and Director of Dominion Securities Limited, one of the largest investment dealers in Canada. Mr. Wilson also spent one year with the federal Department of Finance with responsibilities in the capital markets area.

The Honourable Ronald Huntington, 58, Minister of State for Small Business and Industry, is an experienced businessman who has successfully run several firms in British Columbia.

Easing the skilled-labour shortage

With the objective of solving Canada's chronic shortage of skilled labour, the Canada Employment and Immigration Commission has introduced the Critical

Trade Skills Training (CTST) program, which will involve cooperation among government, labour, industry and educators.

Assistance will be given to firms that undertake to initiate or expand training in skills for which there is either a shortage of workers or a heavy dependence on off-shore sources. Employers will be subsidized for about 45 percent of the wages paid to apprentices to a maximum of \$170 a week over a maximum period of 104 weeks. The federal government will also provide assistance to cover the costs of classroom training.

The following are the target occupational groups: mould and core makers; tool and die makers; machinists; sheet metal workers; boilermakers; electrical equipment installers; and industrial mechanics.

Canada and the OECD Declaration on International Investment and Multinational Enterprises

At the June 13, 1979 ministerial meeting of the Organization of Economic Cooperation and Development, the Honourable Flora MacDonald, Canada's Secretary of State for External Affairs, reaffirmed Canada's support of the principles embodied in the OECD's Declaration on International Investment and Multinational Enterprises. The Minister also assured other member countries that Canada intends to continue playing an active and constructive role in all OECD deliberations on international investment issues. She reiterated, however, that Canada retains its right to take measures which it considers necessary to strengthen domestic enterprises and ensure that foreign direct investment be of significant benefit to Canada.

Canada has maintained this position since 1976 when the OECD Declaration was adopted. At that time Canada voiced its support of the national treatment principle—that member countries accord foreign-controlled enterprises the same legislative, regulatory and administrative treatment they accord domestically-controlled enterprises—but stated that the extensive degree of foreign ownership and control in its economy made it necessary for Canada to be able to take appropriate measures to maintain effective control over its economic environment. To accomplish this and other economic objectives,

Canada has had recourse to various measures, the best known being the Foreign Investment Review Act.

The June 1979 ministerial meeting was the culminating point of a year-long review of the Declaration, the first since its adoption in 1976. Though member countries agreed that the Declaration was a useful point of reference on international investment, they indicated that more experience with it was necessary before any major conclusions could be drawn or recommendations made. They did, however, adopt a minor amendment to the guidelines on multinationals concerning the transfer of workers by multinationals in order to influence local labour disputes. They also recommended improved consultation procedures and a comprehensive medium-term study of the effects of competing government incentives and disincentives for the location of direct investment.

Planned capital investment up

Three organizations, two governmental and one non-governmental, all predicted last Spring that capital spending by government and business would rise significantly in Canada in 1979. Statistics Canada, the Government of Canada's official statistics agency, the federal Department of Industry, Trade and Commerce, and the Conference Board in Canada, an independent research organization, all based their conclusions on surveys which they carried out independently on capital investment plans and attitudes.

Statistics Canada expected business and government capital spending to be 9 percent greater in 1979 than in 1978. The private sector was expected to account for the greatest increase with capital investment intentions up 12 percent. Though government spending was also expected to increase, it would do so at only half its 1978 rate.

In its semi-annual survey in April, the federal Department of Industry, Trade and Commerce found that 300 major corporations in Canada planned to spend about \$20.7 billion on buildings and equipment in 1979, which was \$1 billion more than had been estimated only six months earlier. In manufacturing, the biggest increases were expected in transportation equipment, primary metals and food and beverages. In non-manufacturing, strong increases were anticipated in mining, transportation and storage, as well as finance and other commercial sectors.

Also of interest in the Department's survey was the fact that foreign-controlled firms showed a higher rate of increase in planned capital investment than Canadian-controlled firms. The 300 corporations represent two thirds of all non-agricultural investment in Canada. The Department estimated that, for the economy as a whole, the real increase, once inflation was taken into account, would be between 4 and 6 percent, which is substantially higher than the average annual increase of 1 percent recorded since 1975.

The April quarterly survey of the Conference Board in Canada also indicated an increase. Its purpose, however, was to identify attitudes rather than actual investment intentions. To this end, it surveyed the chief executive officers of 220 Canadian companies. Approximately 58 percent of the c.e.o.'s thought that it was a good time to invest in Canada. The corresponding figure a year earlier had been 30 percent. Higher market demand, corporate profits and capacity utilization rates were seen by the executives as the main reasons for increased planned investment.

Labour contract lengths increasing

Research carried out last Spring by IR Research Reports of Kingston (Ontario) showed that the average length of labour contracts, covering 500 or more workers, increased in 1978. This trend coincided with the May 1978 end of wage and price controls in Canada. The table below compares the average length of contracts by sector in 1977 to that of 1978.

Average contract length (in months and weighted by number of employees)

Sector	1977	1978
Mining	17.4	24.0
Manufacturing	21.5	23.7
Transportation	14.3	15.8
Trade	16.5	19.8
Services	14.5	17.8
Public administration	14.0	17.9

Other work has confirmed the 1978 trend. In May 1979, the federal Department of Labour published statistics showing that, in the first quarter of 1979, 76 percent of the 107 major agreements involving 500 or more workers were signed on two- or three-year periods. This was the largest percentage of such contracts recorded in any quarter since 1974.

Profits rise early in 1979

In a Spring quarterly financial report, Statistics Canada reported that after-tax profits of non-financial businesses were 58.3 percent higher in the first quarter of 1979 than they were in the corresponding period in 1978. The value of sales was also up 17.8 percent.

The first quarter profit surge was attributed to several factors. First and foremost was the lower value of the Canadian dollar, which made Canadian products more competitive abroad and at home. This in turn led to increased sales in the domestic and foreign markets. Wages were another important factor because they increased only 8 percent in 1978, a phenomenon which contributed both to the competitiveness and profitability of Canadian businesses. Part of the profit performance of Canadian enterprises resulted from their ability to increase prices without losing their competitiveness; again this was due to the lower value of the Canadian dollar. Also cited in the profit picture was the fact that Canadian businesses were able to increase plant utilization, resulting in lower costs per unit of output and thus greater profit per unit. Finally, resource companies with large inventories profited from the surge in metal prices.

Profits did not rise evenly across the board. Manufacturing headed the list with an increase of 68 percent, whereas mining profits were up 24.7 percent and other industries 60.4 percent. The food and beverage sector had a mixed performance with food processing profits down 4 percent and distillery profits up 35 percent.

Company reports to appear in segment form

A requirement by the Canadian Institute of Chartered Accountants, that segmented information be included in financial statements, became effective for reports on fiscal years starting June 1, 1979 or later. In so doing, Canada joined the United States as the only countries to require segmented information in companies' annual financial statements. As is the case in the United States, accounting standards in Canada now require that companies provide detailed information by line of business, geographic area and the split between export and domestic sales.

The new information requirements apply to companies whose securities are traded in a public market and who file

statements annually with a securities commission. The rule of thumb is that a segment, which accounts for 10 percent or more of a company's results, must be reported separately. Specifically, information must be provided if: the segment accounts for 10 percent or more of all industry segments, including inter-segment sales and transfers; if it accounts for 10 percent or more of the absolute amount of segment operating profits or losses; or, if its identifiable assets are 10 percent or more of the identifiable assets of all industry segments. A company that has most of its operations in one segment (say 90 percent), however, should report that industry as dominant and not as a reportable segment.

For industry segments, the company is required to provide a general description of the products and services from which each segment derives its revenues. For reportable industry segments, including the remainder of the business after identifiable segments are accounted for, a company must disclose: revenue derived from sales to customers outside the business; revenues from inter-segment sales or transfers and the basis of accounting for this revenue; operating profit or loss, depreciation, amortization and depletion expenses and any unusual items in the determination of results; and the total assets at the end of the period together with capital spending for the period.

For geographic segments, the location of each segment must be disclosed and the company must report: revenue to customers outside the company; revenue from sales or transfers between segments and the basis for accounting for such revenue; operating profit or loss or some other appropriate measure of profitability; and the total carrying amount of identifiable assets at the end of the year.

In both industry and geographic segments, the information must be reconciled with consolidated accounts. Furthermore, export sales from domestic operations must be reported separately when they account for 10 percent or more of sales.

Companies are also expected to report: accounting policies that are significant to a reportable segment; prior period information when there have been changes in industrial or geographic groupings; and the effect of any changes in accounting practice, including the method of allocating expenses among segments.

For more details on the new reporting requirements, contact the Canadian Institute of Chartered Accountants, 250 Bloor St. East, Toronto, Ontario, Canada M4W 3G5.

Japanese investment in Canada

by Joan Gherson

A significant development in recent years has been the growing importance of Japanese overseas investment. Although Japanese capital represents only a small fraction of all foreign investment in Canada, several features have made it unique and interesting, including a tendency toward loans rather than equity, a high incidence of minority holdings and joint ventures, and a marked orientation toward Western rather than Central Canada, which has been the usual target for foreign investment in this country.

From 1970 to 1978 nearly \$27 billion was authorized for overseas investment by Japanese companies. This represents an average annual investment exceeding the cumulative total of the previous two decades. Even though actual investment falls short of the licensed amount because some approved projects fail to materialize, the rate of growth has still been remarkable, raising Japan from a negligible foreign investor to one of the foremost in the course of a decade. If the current annual level of investment is maintained at over \$4 billion, Japan could become the world's second largest investor in the 1980's.

Japanese licensed investment in Canada also increased substantially and at a faster pace overall than that of most other investing countries. From a total of only \$113 million in 1969, accumulated investment grew to \$715 million by 1978-79.

Despite its considerable growth record, Japanese investment in this country has not kept pace with total Japanese investment overseas. From 1951 to 1970 the Canadian share of the total was nearly 6 percent of all licensed Japanese foreign investment. For 1970 alone, when investment for that year nearly equalled the total of the previous two decades, it accounted for a remarkable 10.8 percent of Japanese overseas investment. Since then, however, Canada has had a substantially smaller share. This country now accounts for only 3 percent of all outstanding Japanese foreign investment, ranking eighth in the scale of recipients. Changing Japanese priorities account for that decrease. During the 1970's worldwide Japanese investment in mining and forest products, the two most important targets for investment in Canada, grew more slowly than total Japanese investment. The manufacturing sector, on the other hand, increased its share of the total, but that investment was largely directed towards the developing countries.

Besides being a small proportion of total Japanese investment, the Canadian share represents a small proportion of total foreign investment in Canada. Though Japan ranked seventh among investing countries in 1975, it accounted for less than 1 percent of all foreign direct investment (based on actual, rather than autho-

rized, investment and excluding portfolio investment). Later figures are not available, but applications under the Foreign Investment Review Act indicate a continuing low level of Japanese-controlled investment. From 1976 to 1978 only two percent of the applications were from Japan and allowed Japanese investments accounted for a mere 0.3 percent of the total value of investments allowed.

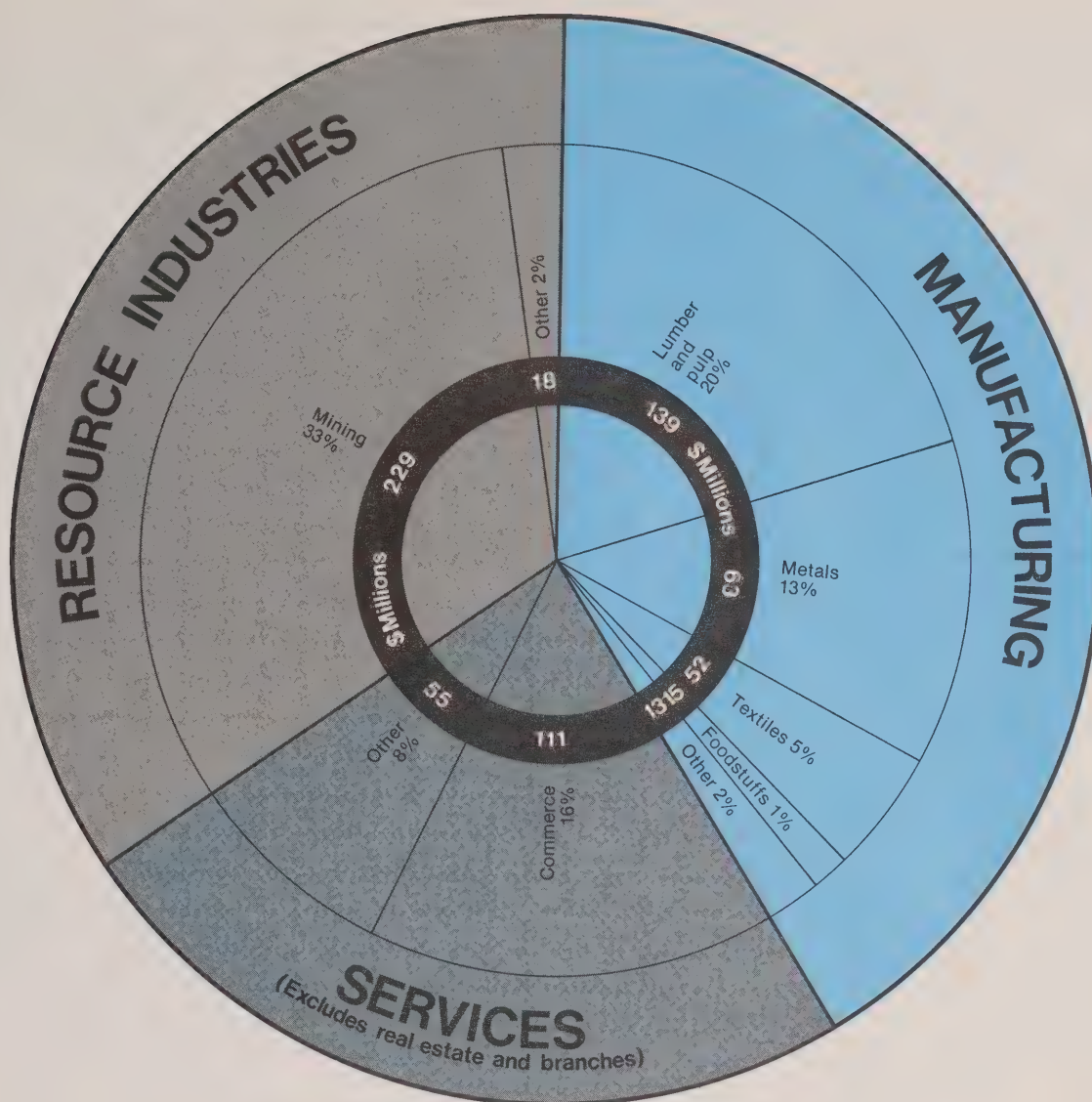
Characteristics of Japanese investment

Japanese investment is unlike traditional foreign investment in Canada. A high proportion of it is in the form of loans rather than equity, and the Japanese often take minority holdings or enter joint ventures. Another unique characteristic is the extensive participation of the large Japanese trading houses. In addition, while most foreign investment is destined for Central Canada, Japanese investment is earmarked mainly for Western Canada, particularly British Columbia and Alberta.

Just over half of Japanese investment in Canada is in equity. The rest is mainly in the form of loans, including corporate bonds and debentures, with a very small amount in real estate and branches. This distribution almost exactly parallels that of Japan's worldwide investment but differs markedly from its pattern in the United States where 70 percent is in equity. In forest products and metal fabricating, the chief focus of Japan's manufacturing investment in Canada, the ratio of loans to equity is higher than the average, whereas in the principal non-manufacturing sectors, mining and trade, it is lower. In the trade sector equity accounts for over 90 percent of the investment.

As mentioned above, the high incidence of joint ventures is a distinctive feature of Japanese investment. On a world-wide basis, only about 10 percent of subsidiaries are wholly Japanese owned and less than one-third are majority owned. Canadian experience confirms this general pattern, and it is one of the reasons why Canadian data on foreign direct investment, which does not include portfolio investment, show Japanese investment to be less than half the licensed investment.

Joan Gherson is an economist with the Research and Analysis Branch of the Foreign Investment Review Agency.



**Cumulative Japanese investment in Canada by industry sector
December 1978**

Investment by sector

Resource development and resource-related industries account for more than half of Japan's accumulated investment in Canada. Of these, mining is the most important (33 percent), followed by forest industries (20 percent). Since Japan's investment in resources is mainly motivated by its industry's need for raw materials, its targets have changed over time from non-ferrous metals and forest products to coal, and then to oil and uranium. In the last decade, copper was particularly attractive to investors, who took a small minority interest in quite a number of developments in British Columbia, often providing debt financing and long-term sales contracts. Most Japanese investments in the forest

industry were made between 1967 and 1973. They include control of a lumber, pulp and plywood company, Crestbrook Forest Industries Ltd., by Mitsubishi Corporation and Honshu Paper Co. Ltd., control of several sawmill operations, a combined 50-percent interest in Cariboo Pulp and Paper Co. Ltd. for Daishowa Paper Manufacturing Co. Ltd. and Marubeni Corporation, and a substantial interest on the part of Jujo Paper Co. Ltd. and Sumitomo Shoji Kaisha in Finlay Forest Industries Ltd., a pulp and lumber company. These companies, all located in British Columbia, export most of their wood products to Japan.

By the early 1970's, investor interest focused on metallurgical coal in order to provide assured supplies for Japan's fast-

growing steel industry. The first major equity investment was in 1973 when a consortium led by Mitsubishi Corporation gained a 27-percent interest in Kaiser Resources Ltd., British Columbia's leading coal producer, whose output at that time was wholly exported to Japan. Kaiser, with Mitsubishi and Mitsui & Co. Ltd., have plans for another large mine development in British Columbia, but it, as well as two other giant metallurgical coal projects that include Mitsui participation, now awaits better prospects in the steel industry in order to secure long-term supply contracts and financing. If they materialize in the next decade, these three projects alone would involve Japanese investment exceeding the whole amount invested to date in mineral development. In

the meantime other joint ventures could occur in thermal coal, in which Japanese investors have shown increasing interest following Japan's decision to diversify its energy sources.

High-priced oil and diminishing reserves of conventional oil have sparked great Canadian and foreign interest in non-conventional oil resources in Alberta. Two Japanese companies, both controlled by the Japan National Oil Company, are now involved in important projects for developing *in situ* technology for oil recovery from these resources. One, a joint venture between Japan Oil Sands Co. Ltd. and Norcen Energy Resources of Canada, is concluding a pilot program using steam injection for heavy oil recovery; a decision about commercial production has not yet been made. In another joint venture with Petro Canada and other partners, Japan Oil Sands Alberta Ltd. will invest at least \$75 million over the next 15 years to develop new technology for recovering oil from oil sands by electrical induction.

Reflecting their substantial commitment to nuclear energy for generating electricity, the Japanese are also engaging in exploration for uranium. PNC Explorations (Canada) Co., a newly-formed subsidiary of the Japanese Government agency, Power Reactor and Nuclear Fuel Development Corp., has several projects in Canada, including a partnership with Eldorado Nuclear Ltd. and Saskatchewan Mineral Development Co. (SMDC) at Beaverlodge, Saskatchewan and a 45-percent interest, also in partnership with SMDC, at Wollaston Lake. With an annual budget of only \$2.5 million, however, PNC's expenditure is but a very small part of the nearly

Japanese applications to the Foreign Investment Review Agency*

	Acquisitions	New businesses
Number of applications		
Allowed	13	15
Disallowed	2	1
Withdrawn	3	5
Allowed applications by sector		
Resources	2	1
Manufacturing	2	4
Services	9	10
Allowed applications by region		
British Columbia	5	7
Prairie Provinces	1	-
Ontario	5	6
Quebec	2	1
Atlantic Provinces	-	1

* To March 31, 1979

\$70 million spent last year on uranium exploration in Canada.

Except in pulp and paper, Canada has not been as successful as Europe or the United States in attracting Japanese capital in manufacturing. The few Japanese companies that are in Canada, however, produce a wide range of products, from Japanese milk products to plastic products and color televisions. Many of them are joint ventures, combining Japanese technology and financing with Canadian market access. Titan Steel and Wire Co. Ltd., a large cable manufacturing company, is

one such Japanese-Canadian venture, in which Kobe Steel Ltd. and Mitsui Corporation are the Japanese partners. Another is Sekine Canada Ltd., which makes bicycles for the Canadian market using Japanese Sekine Industries Ltd. technology. There are also a number of joint ventures in textiles, mainly in Quebec, the largest being Fuji Dyeing and Printing Limited, engaged in dyeing, printing and finishing textiles. The Japanese partners in this venture are C. Itoh & Co. Ltd., Seiren Co. Ltd. and Teijin Ltd. An important manufacturer of ball and roller bearings with substantial

Japanese licensed investment in Canada (million dollars)

By period or year	Year	Cumulative
	1951-1969	113
98	1970	211
14	1971	225
51	1972	276
113	1973	389
52	1974	441
59	1975	499
86	1976	585
48	1977	633
82	1978	715

Source: Japanese Ministry of Finance

world exports is NTN Bearing Mfg. Canada Ltd. Beginning as a joint venture with Canadian-owned CAE Industries Ltd., the firm is now Japanese controlled.

There are also substantial Japanese investments in some food processing activities, mainly oilseeds and fish products. The several minority interests and joint ventures in Western Canadian oilseed processing plants all date from 1973-76. Interest in fisheries began much earlier. Marubeni Corp.'s 50-percent holding in Cassiar Packing Company Ltd. dates from 1962, while Taiyo Fishery Co. Ltd. has been established on the east coast since 1966. Recently, Japanese investors have shown renewed interest in this resource.

One investment intention which could dwarf all previous investment in manufacturing is the \$225-million Petrochemicals Alberta Project (Petalta), a world-scale benzene plant, in which Mitsubishi Corp. is a partner.

In terms of the number of investments, the service sector, which covers trade, warehousing, banking and other activities, is by far the largest. Nearly 40 percent of licensed investments have been in this sector. Moreover, since they more often involve Japanese control, these investments represent an even higher proportion of cases reviewed under the Foreign Investment Review Act. Of the 23 Japanese investment proposals allowed under the Act between 1974 and 1978, 19 were attributed to service industries. Their average value, however, is small and consequently services account for only about a quarter of the value of licensed investment. This sector includes the captive distributors of Japanese manufacturers and the Canadian subsidiaries of major Japanese trading companies who play a major part in servicing the \$1.7-billion import and \$2.5-billion export trade with Japan. Annual revenues of the three largest of these companies, Mitsubishi Canada, Mitsui & Co. (Canada) and Marubeni Canada, place them in the top 100 firms in Canada, according to the Canadian Business Magazine listing. Nissan Automobile Co. Canada, which imports Datsun cars and trucks, Canadian Honda Motors Limited and Canadian Motor Holdings Ltd. (Toyota), are in the top 200 companies. Most of the other well-known Japanese manufacturers such as Sony, Panasonic, Hitachi, Yashica, Noritake, as well as some lesser known firms, also have substantial distributing companies in Canada. This trading group includes most of the wholly-owned Japanese companies in Canada, although some have Canadian partners. It also represents the oldest Japanese investments in Canada, many dating from the early 1950's when Japanese trading companies began to establish themselves around the world.

Increasing travel between Canada and Japan has encouraged investment in tourism. C. Itoh & Co., for example, has a

minority interest in a company selling package tours between the two countries and Prince Hotels Inc. owns a hotel in Toronto. In the financial sector, several Japanese banks have established representative offices in Canada.

Outlook for Japanese investment

The slower growth rate of the past several years and the decreases in 1974 and 1977 have deflated previous Japanese investment forecasts which were based on annual increases of 20 percent or more. Nevertheless, many factors point to continued high levels of Japanese foreign investment over the next several years. Foreign investment by Japanese companies is being encouraged by the Japanese government to help reduce the large accumulation of foreign exchange reserves and to offset protectionist measures against Japanese exports. At the same time, the relatively high exchange value of the yen makes foreign investments increasingly attractive to Japanese firms. In addition, rising Japanese labour and electricity costs have made manufacturing more competitive in some foreign locations and growing environmental concern in Japan may limit further industrialization at home. Finally, Japanese fiscal policy and the establishment of the EXIM bank favour new investment in resource projects. The increase in overseas investment in 1978 has also encouraged expectations for a period of renewed growth.

The outlook for Japanese investment in Canada is also quite favourable. One hopeful sign was the slight rise in Canada's share of total Japanese foreign investment in 1978 after several years of steady decline. That decline was largely attributed to the slower growth of Japanese investment in the resource sector. World-wide Japanese investment in re-

sources is not expected to accelerate, but there are a number of reasons why a larger proportion could be directed to Canada. First, Japanese investments in this country's resources have been increasingly directed to energy resources. The outlook for this sector, and for fisheries, in which there is increasing Japanese interest, is more favourable than for other raw materials, though much will depend on Canadian investment and export policies in these sensitive areas. Another factor that favours Canada for resource investment is its reputation as a stable and reliable source of supply. In a recent survey, Japanese investors ranked Canada higher than any other resource area in terms of investment climate.

While investment in Canadian resources should grow despite a general slowing of Japanese resource investment growth, the manufacturing sector could benefit from the trend towards establishing new plants, particularly for consumer durables, in developed countries. Thus far, the United States and Europe have been the chief beneficiaries of that investment, but the recent improvement in Canada's competitive position, a result of the lower exchange level of the dollar and increased industrial productivity, could spark new interest. Specific measures, such as the remission of duty on certain imported manufactures in return for purchases of Canadian components, could also encourage the production in Canada of parts for export. For manufacturing generally, Canada's resource base and its relative advantages in energy will be important factors in future development. Greatly increased contact between Japan and Canada, not only of officials, both federal and provincial, but also of businessmen, through trade and investment missions and the Canada-Japan Business Cooperation Committee, are fostering a greater awareness of the mutual benefits of investment.

Some Japanese trading companies* and their Canadian investments

Mitsui & Co. Ltd. - trading, minerals, warehousing, wire manufacturing, venture capital

Marubeni Corporation - trading, fish processing, construction, wire products, minerals, oil and gas

Mitsubishi Corp. - trading, oilseed processing, minerals, pulp, lumber, beef processing, venture capital

C. Itoh & Co., Ltd. - trading, oilseed processing

Nissho-Iwai Co., Ltd. - trading, oilseed processing

Sumitomo Shoji Kaisha Ltd. - trading, lumber, minerals

Kunematsu-Gosho Ltd. - trading

Toyo Menka Kaisha Ltd. - trading

Itoman & Co. Ltd. - trading

* Includes subsidiaries

Canada's industrial relations in international perspective

by Alton Craig

Some significant differences exist between the industrial-relations systems of Europe and Canada, principally in the extent of unionization, the legal framework and collective bargaining. Canada has placed more emphasis on collective bargaining legislation, whereas European countries have generally concentrated on labour standards legislation. This accounts in great part for the differences between Canadian and European collective bargaining in particular, and their industrial-relations systems in general.

Any comparison of industrial-relations systems is subject to problems because different countries use different concepts and have different data gathering and reporting methods. It is only by considering the nature of the systems that one can find a meaningful comparison. Thus, time-loss due to work stoppages is a meaningful statistic only when it is placed in the context of the legal framework and the collective bargaining system and when other factors, such as the length of individual work stoppages, are taken into account.

Unionization and union movements

Canada has neither the most nor the least unionized labour force in the world. At about 31 percent of the civilian labour force, its degree of unionization is lower than that of Sweden (75 percent), Belgium (66 percent), Denmark (65 percent), and Italy (about 45 percent), but is higher than that of France (25 percent), Switzerland and the United States (22 percent). The extent of unionization in Canada's labour force is expected to increase, however, with more and more public and parapublic employees being allowed to unionize and engage in collective bargaining. Continued union efforts in traditionally non-union sectors, such as financial institutions, will also contribute to this growth.

It has been observed that, in general, organized labour in Europe exercises greater political influence than its Canadian counterpart. The degree and nature of that influence, however, varies from country to country; this is clear when one compares the situation in the United Kingdom, where organized labour is closely tied to a party which is regularly in power, to that of France, where organized labour is closely tied to the country's two major opposition parties which have not been in power for a very long time. Nevertheless, the intimate relationship between major political forces and organized labour in Europe has only a relatively weak parallel in Canada where the Canadian Labour Congress, Canada's largest labour federation, has maintained a fairly close relationship with the country's third most important federal party, the New Demo-

cratic Party, which has never been in power. Canada's other labour federations are not affiliated to any political party. To underline the influence of European organized labour, it should be noted that the heads of the largest unions in the United Kingdom are members of the Labour Party's executive and that in Italy, West Germany, Austria and Sweden, major union heads are regularly consulted before any major social or economic legislation is passed. In Canada, neither tradition nor law oblige the government to consult organized labour; in other words, the degree of consultation, indeed whether or not there is consultation, is at the discretion of the government. Another factor that gives European organized labour a much stronger political voice than its Canadian counterpart is that it is easier for European labour executives or representatives to speak as the voice of labour than Canadian labour representatives, who must consult their membership before taking any definite stand or committing labour to any policy.

The industrial-relations systems of Europe and Canada differ also in terms of union-employer relations. In Europe, there is a fairly close working relationship between the trade-union federations and the federations of employers, whereas in Canada such a relationship does not exist, partly because of the loosely-knit nature of the employer associations. Consultation between workers and employers was formerly set out as an objective in Europe many years ago when the signatory governments to the Social Charter of Europe, adopted in 1961, undertook to promote that kind of consultation. No such charter exists in Canada. This is not to say that there has not been consultation between representatives of business and labour in this country. A good example of such consultation was the tripartite sector task force committees, which were organized by the federal government in 1978 for the purpose of analysing Canada's industrial sectors and making recommendations for strengthening them. Though business and labour did disagree in a number of areas, a fairly effective dialogue was achieved.

Union-employer relations at the company level are also much more structured and extensive in Europe than in Canada.

In a number of European countries, notably Sweden and West Germany, worker participation on company policy boards has been in practice for a relatively long time, whereas in Canada it is a concept which has not advanced beyond debate. Worker participation or industrial democracy has not been universally accepted in union circles themselves and union federations have placed greater emphasis on tripartite (government-business-labour) consultation on questions such as a national industrial policy. Claims for worker participation have tended to reflect the views of the avant-garde in the labour movement rather than those of the average union member.

Collective bargaining and dispute settlement

Canada has the most decentralized bargaining structure of all its major trading partners. This is due in large measure to the fact that the federal government's jurisdiction over labour relations is limited to only about 10 percent of the labour force. European governments, even those in federal systems, play a much greater role. Canadian employers and unions, who operate on a national scale, may have to deal with labour laws in up to 10 different jurisdictions. This is further complicated by the fact that Canadian collective bargaining law is considerably detailed on such items as "appropriate" bargaining-unit determination, bargaining agency certification, a wide range of unfair labour practices by both employers and unions and, to some extent, the contents of collective agreements. Furthermore, most Canadian jurisdictions have a fairly elaborate system for compulsory third-party intervention before a strike or lock-out occurs. The European approach to collective bargaining law is very different. It has been observed that, in general, European collective bargaining law is more concerned with establishing a legal framework in which the bargaining process can take place than with a detailed blueprint for the process itself. Thus, there is no European equivalent to the certification procedure, the statutory bargaining unit and the majority-representation characteristics of Canadian and U.S. collective bargaining law.

Given the nature of European law, employer associations and union federations often negotiate collective agreements on an industry or, at least, sector basis. This more centralized form of bargaining allows both employers and union leaders to take a much more comprehensive view of their industry and country's competitive position and to act accordingly. In some European countries, settlements at this level establish a minimum which may be increased at the sector or company level, a phenomenon known as *wage drift*. In Canada, the decentralized bargaining

structure makes it difficult for employers and union leaders to perceive the impact of their settlements on the industry or country as a whole. In recent years, however, there has been a growing trend in some parts of the country, notably in Quebec and British Columbia, toward a more comprehensive bargaining system. In addition, a recent federal government task force recommended that broader-based bargaining units be used in industries under federal jurisdiction. As a result, collective bargaining in Canada may be slowly becoming more comprehensive.

Labour standards and collective bargaining

Though Canada has a substantial amount of social welfare legislation, ranging from unemployment insurance to a medicare plan available across the country, its labour standards legislation—in various countries this may include minimum wages, hours of work, health and safety, and "social security" issues or fringe benefits—is not as extensive as in Europe, where broad items affecting workers' daily lives are covered in that kind of legislation rather than in collective agreements. This tends to limit the contents of collective agreements in Europe and, in cases where the workers seek change, to result in court cases rather than in the negotiation of contract terms or even strikes. The obvious implication is that the negotiation of collective agreements in Europe is less farreaching and complicated than it is in Canada.

A case in point is the different approach used by Europeans and North Americans in coping with technological change, a problem which has caused several disputes in Canada. Most European countries have attempted to solve the problem by means of legislation. In some European countries, employers are required to make payments into government-administered "redundancy schemes" to cushion the impact of technological and other changes. No such legislation exists in Canada. There are other examples. In some European countries, such as the United Kingdom, medical payments come out of general revenue rather than employer-employee contributions. In Canada, social security plans or fringe benefits have placed a heavy burden on collective bargaining, particularly when employers have been hostile in principle to dealing with such issues in collective bargaining.

Canada's strike record in perspective

Close to 90 percent of all industrial negotiations in Canada are settled without work stoppages. The lengthy duration of some work stoppages, however, has hurt

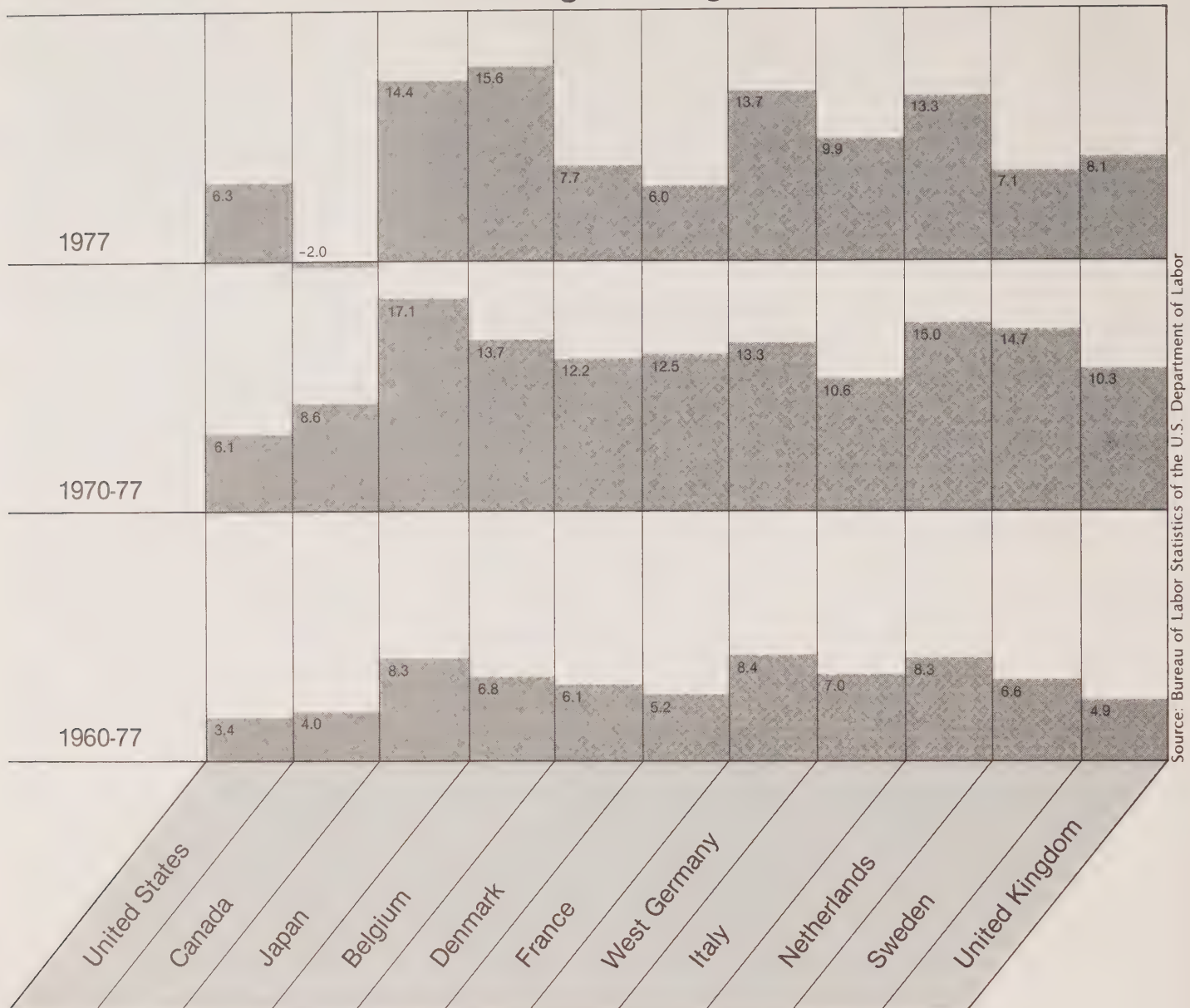
Canada's image in terms of man-days lost per thousand employees. From 1960 to 1976, the percentage of strikes in Canada which lasted over 25 days increased from 19 percent to 40 percent. In 1977, Canada experienced 100 strikes, 10 percent of which lasted between 50 and 99 days and accounted for 30 percent of all time lost that year. In addition, about 4 percent of the strikes lasted from 100 to 199 days and accounted for 17 percent of the time lost. Thus, 14 percent of the strikes in 1977 accounted for approximately 47 percent of the time lost, a fact which confirms the view that Canada's problem is not the number of strikes, but rather their duration.

A number of factors have been identified to explain this phenomenon. One major consideration is the size and complexity of the collective agreements. As was pointed out above, collective agreements in Canada and the United States are very complex documents which are difficult to negotiate in the short negotiation periods available. The adversary nature of the negotiations, with labour and management taking extreme initial positions, complicates the process further because the initial demands and counter-offers take a long time to narrow down to positions acceptable to both parties. Since membership ratification of agreements is traditionally used in Canada, large opening demands by unions can raise membership expectations to the point where it becomes difficult to obtain ratification because the settlement terms may very well fall short of those expectations. Furthermore, there have been cases of employers who were not willing to accept unions and collective bargaining; this attitude has frustrated employees and has prolonged what might otherwise have been minor conflicts.

Lengthy strikes are not new to Canada and the United States. In 1946, it took a six-month strike between the Ford Motor Company and the United Automobile Workers Union in Canada to resolve the question of a particular type of union security clause. In 1947, the United States experienced a very long strike when unions attempted to force employers to negotiate pension plans. In addition, there was a 116-day strike in the U.S. steel industry in 1959 over the employers' unsuccessful attempts to change local work rules. Despite the length of the 1959 strike, little damage was done to either the U.S. economy or the steel industry.

Similar conclusions can and have been drawn in relation to strikes in Canada. It has been shown that work stoppages in Canada's goods producing industries have had an insignificant effect on the economy. Furthermore, given the nature of Canada's dispute settlement procedures, employers and workers can hedge against strikes by extra work and stockpiling or replenish inventories after strikes.

Percentage change



**Annual percentage change in manufacturing unit labour costs, 11 countries
1960-1977 (based on U.S. dollars)**

Labour costs per unit of output

Three major factors must be taken into account when comparing Canada's labour costs with those of its major trading partners. They are hourly compensation, productivity and exchange rates. A special problem arises when comparing compensation because it includes not only direct wages but also other forms of supplementary income. In some countries parts of social security programs are financed out of general revenue from taxes, whereas in other countries either employer or employee-employer contributions finance these social security benefits. Nevertheless, a comparison of labour costs is possible.

Canada's labour costs compare favourably to those of its major trading partners. In fact, on a U.S. dollar basis, Canada was second only to the United States in terms of its unit labour cost performance between 1960 and 1977. As the graph indicates, Canada's annual percentage increase in manufacturing labour costs was significantly lower than that of all its trading partners, except the United States. Canada's increase was about half that of Japan and about two-thirds less than that of most of its European trading partners.

Conclusion

Canada's industrial-relations system is significantly different from that of most

European countries. Canada has placed more emphasis on collective bargaining legislation than European countries have and much less on labour standards legislation. This has had a direct bearing on Canada and Europe's experience with collective bargaining. Much of what is covered in European legislation is left to collective bargaining in Canada, making the process much more complicated in this country. The complicated nature of collective bargaining in Canada in turn partly accounts for the greater length of strikes in this country. And, as was shown above, it is the length and not the number of strikes which accounts for much of the time-loss due to work stoppages in Canada.

Acquisitions by multinationals

A recent study by the Foreign Investment Review Agency showed that multinational enterprises (MNEs) accounted for the majority of acquisition cases it had reviewed. Most of the MNEs had operations in several countries including Canada at the time of their initial application, and sought to acquire businesses whose activities were related to those of their existing Canadian interests.

In this study an MNE was defined as a company that had operations in one or more countries other than its home country and Canada. Though less rigorous than those used in some MNE studies, this definition excluded most small trans-border operations without unduly limiting the size of the sample.

The study covered those acquisition cases that were decided between April 1974, when the Foreign Investment Review Act came into force, and March 31, 1979. In all, there were 953 such cases. However, in those cases which involved a joint application by two or more companies, each applicant was considered to have made a separate application, bringing the total number of applications to 986.

MNEs accounted for 71 percent of all acquisition applications. However, only 27 percent of those came directly from the MNEs themselves. In the majority of cases an existing or newly-formed subsidiary, either Canadian (55 percent) or foreign (18 percent), was the company named in the application. The number of MNEs identified as ultimate controllers, however, was smaller than the number of MNE-related applications because many MNEs were involved in two or more applications, often through different subsidiary companies. In fact, 33 percent of the MNEs identified as ultimate controllers were involved in more than one acquisition application. This is over five times greater than the rate for non-MNEs. Although most of the "repeat" MNEs were involved in only two applications, a significant number were involved in several, including one which was identified in 12 applications. In some cases second applications involved the re-submission of an application previously disallowed, but in most instances they were for the acquisition of another Canadian business. Where an MNE was involved in more than one application, the direct applicant was not always, or even often, the same for each application. More than two-thirds of these MNEs did

not use the same applicant for all acquisitions. In all, 265 of the 697 MNE applications were repeat applications and, in consequence, the number of separate MNEs studied was only 432.

Characteristics of MNE applicants

A majority of the MNEs involved in the study were corporations with world-wide operations. More than half (56 percent) operate in 10 or more countries and almost 75 percent in five or more (Table 1). The United States accounted for both the largest number of MNEs (59 percent) and the largest number of world-scale applicants. For example, 135 of the 241 MNEs operating in 10 or more countries were American. Nevertheless, the proportion of all U.S. applications that were from MNEs, as well as the proportion of large-scale MNEs in the U.S. total, is smaller than corresponding proportions for many countries, notably several European countries.

As well as having operations in a number of countries, most of the MNE applicants already had one or more Canadian subsidiaries or associates at the time of their initial application: nearly 75 percent had at least two such subsidiaries, while a further 10 percent had one. Fourteen percent had more than 10 Canadian subsidiaries.

A comparison of the MNEs involved in acquisition applications with those listed in the Fortune 500 largest corporations gives further evidence of the large size of MNE applicants. Of the 253 U.S. applicants, over half (143 applicants) are among the top 500 corporations on the Fortune list and a further 25 are among the next largest 500. Sixty-nine of the 179 applicants from other countries are listed among the largest 500 corporations outside the United States. Moreover, both U.S. and other applicants represented a

Table 1
Multinational enterprises by home country and host countries

Home country	Number of host countries (other than Canada)										Total
	1	2	3	4	5	6	7	8	9	10 plus	
U.S.	18	21	15	21	10	11	11	5	6	135	253
U.K.	1	3	3	4	3	3	1	2		48	68
W. Germany	4	2	2	1	3		1		1	20	34
Holland				1	2			2		8	13
France	1	2			1	2	1	1		4	12
Switzerland		1		1		1		1		6	10
Japan				2		1		2		4	9
Sweden	1	1					1			5	8
Italy				1						3	4
Australia	1		1	1						1	4
South Africa				1						2	3
Belgium										2	2
Neth. Antilles				1						1	2
Other countries			5	1			1		1	2	10
Total	26	30	26	35	19	18	16	13	8	241	432
Percent of total	6.0	6.9	6.0	8.1	4.4	4.2	3.7	3.0	1.9	55.8	100

very high proportion of the very largest companies – 27 of the 50 largest U.S. corporations and 20 of the 50 largest corporations outside the United States were included.

In the sample of MNE applicants there were 369 publicly-owned and 63 privately-owned corporations; six of the privately-owned corporations are in fact controlled by foreign governments. The sample, which covered nearly every industry, showed wide variation in the value of gross revenues and assets and in employment.

Links between MNE applicants and companies sought

One of the purposes of the study was to examine the links between the operations of the MNE, particularly its existing Cana-

Table 2
Operations of MNE in Canada prior to application

Type of operation	Number	Percent
No operations	74	17
Distribution of MNE's products	25	6
Branch-plant production	162	37
Resource development and exploitation	21	5
Full-scale operations	82	19
Trade (other than parent's products)	7	2
Finance	33	8
Other services	28	6
Total	432	100

Table 3
Observed link between MNE and company sought

	Number	Percent
Horizontal integration with Canadian operations	530	76
- Distribution of MNE products	132	19
- Branch-plant production	216	31
- Resource development and exploitation	54	8
- Full-scale operations	5	1
- Trade	21	3
- Finance	35	5
- Other services	67	10
Vertical integration with Canadian operations	30	4
- backward	24	3
- forward	6	1
Vertical integration with parent operations	12	2
- backward	7	1
- forward	5	1
Horizontal integration with parent	83	12
- Distribution of MNE products	32	5
- Branch-plant production	43	6
- Resource development and exploitation	4	1
- Other	4	
Diversification by parent	42	6
Total	697	100

chandising of products not produced by the parent company or its affiliates, usually general retail trade; financial services; and other services (Table 2).

For the vast majority of the 697 applications studied, some link was found between an existing Canadian subsidiary and the company being acquired. Horizontal links, where the operations of the acquired company were the same as one or more of the applicant's subsidiaries, occurred most frequently (530 cases). This high proportion with horizontal linkage is partly explained by the fact that a large number of existing Canadian operations already combined several activities so that expansion in any one of those activities would be described as horizontal integration. For example, of the 132 cases of horizontal integration in the distribution of MNE products, only 21 were in fact undertaken by MNEs whose major activity was in that category. The rest were initiated by the MNEs whose major activity in Canada was branch-plant production (40 cases), full-scale operations (65 cases) and other activities (6 cases), but who had some distribution activity that led to the acquisition being classified as horizontal integration. There was correspondingly less evidence of vertical linkage, either forward (for example, where the subsidiary company was a manufacturer and the acquired company a distributor) or backward (where the acquired company might be a supplier). Only 11 applications indicated possible forward integration between the acquired company and either a Canadian subsidiary or the parent, while 31 gave evidence of backward integration.

If the MNE applicant had no existing Canadian operations, or if no links were found between the acquired company and existing Canadian subsidiaries, then linkage was sought with the operations of the ultimate controller. In 83 cases the MNE was found to have operations in some other country that were similar to those of the acquired company (horizontal integration with the parent company), leaving only 42 cases where the acquisition was considered to be real diversification on the part of an MNE with no related operations in Canada or elsewhere.

Conclusion

The study of MNE applications showed that a very high proportion of applications to acquire Canadian businesses emanate from MNEs either directly or through a subsidiary company, and a fairly large amount of these are from MNEs with world-wide activities. Furthermore, a fairly high proportion of MNEs are involved in more than one application. At the time of the application, most of the MNEs already had operations in Canada such that the acquisition could generally be viewed in terms of horizontal integration.

dian operations, and those of the company being acquired. Evidence of links, such as vertically or horizontally related operations, does not imply, however, that the link was the reason for the application. In some cases, such as indirect acquisitions, where a company seeks to acquire the Canadian subsidiary of an already-acquired foreign parent, any link between the company being acquired and other Canadian operations of the applicant could be quite fortuitous. However, the links will show the kind of expansion that could result from the acquisition.

Where an applicant already had Canadian operations at the time of the application, possible links between those subsidiaries and the company being acquired were examined first. In order that the nature of those links could be determined more precisely, the operations of MNE

applicants in Canada were first classified according to a number of defined activities or groups of activities. Seventy-four MNEs had no operations in Canada at the time of their application, although several of these had newly-formed subsidiaries that were not operating. For the remainder, major operations of subsidiaries were classified in one of the following seven groups: distribution of MNE (and related) products only; branch-plant production, involving production of one or more of the parent company's products; resource development and exploitation (including mineral mining and refining, agriculture, forestry and fishing); full-scale operations, defined as the capability of performing all functions of the parent company for most of its product lines, generally including product development, production and distribution; trade, which covered the mer-

Capital markets in Canada

by Gilles Gratton

Canadian corporations, whether foreign- or Canadian-controlled, can look to a sophisticated and diversified domestic capital market to raise funds for new investments or acquisitions. Over the years, the Canadian market has matured to the point of being one of the most efficient in the world, trailing only New York and London in prestige. This status is due to Canada's high rate of saving—exceeded only by Japan and West Germany—and the development of institutions and mechanisms which ensure an efficient allocation of savings through the capital market.

In 1978 net new financing by Canadian governments and business through securities markets in Canada and abroad reached a record figure of \$28.3 billion, which is over four times greater than it was only five years earlier. Although government issues predominate in the total of new borrowing, Canadian corporate issues amounted to over \$10 billion, \$9 billion of which were placed on the Canadian market. Corporate borrowers include a wide range of organizations from finance companies, real estate firms, service enterprises, exploration and development companies to large and small manufacturers. The size of new corporate issues reflects this variety, ranging from a low of \$1 million to a high of \$250 million.

For several years bond issues represented an increasing share of long-term corporate financing on capital markets, reaching 76 percent of the total in 1976. Although the value of new bond issues continued to rise in 1977, their share of the total began to decline as preferred share issues increased. In 1978 only 40 percent of new long-term financing by corporations on capital markets was in the form of bonds and in that year the value of new bond issues fell for the first time in five years, to \$4.2 billion.

The proportion of bond financing carried out on Canadian markets has fluctuated according to the availability and price advantage of foreign financing. While only a few large Canadian firms had access to the U.S. markets in the late 1960's and early 1970's, several Canadian firms issued bonds on the New York and European markets in 1975 and 1976. Removal of the Canadian withholding tax on interest payable to foreigners on new corporate loans with a term of five years or more made Canadian company securities more attractive for foreign investors after June 1975. Furthermore, the substantial difference in interest rates in 1976 between issues payable in Canadian dollars and eurodollars favored recourse to European markets. Increased borrowing in Europe substantially reduced the value of corporate bonds issued in Canada from \$2 billion in 1975 to \$1 billion in 1976, while

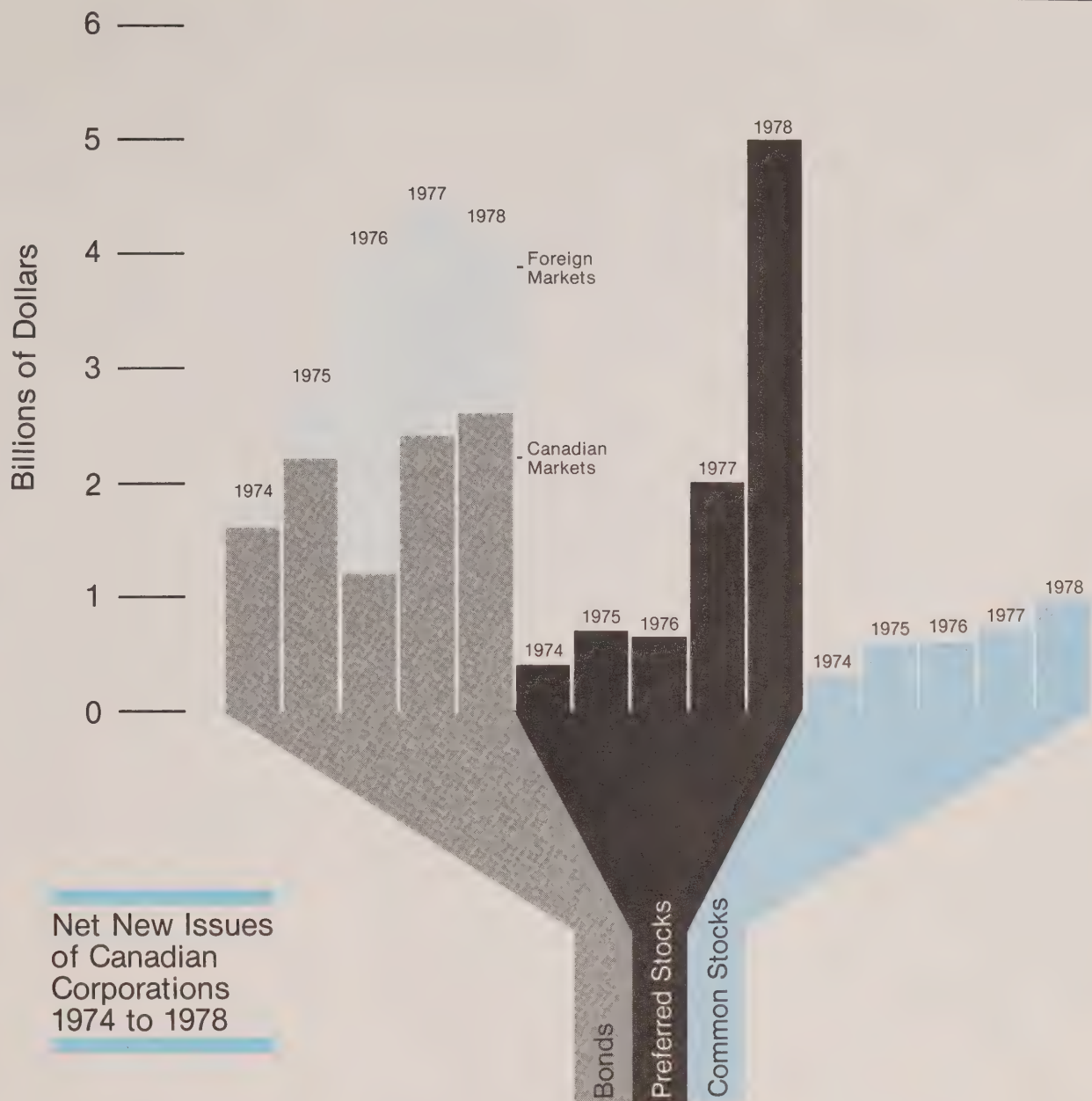
issues in foreign currencies rose from \$600 million to about \$2.9 billion. As the gap in interest rates narrowed in 1977 and the value of the Canadian dollar declined, foreign borrowing decreased and issues in Canadian dollars rose to \$2.4 billion. The following year the value of corporate issues on Canadian markets reached \$2.7 billion and those on foreign markets, \$1.5 billion.

Since 1970, common stocks have played a limited role in new financing. Apart from a small number of public utility and petroleum industry issues, few corporations have sought funds in the stock market. Business uncertainty, inflation, the increasing importance of institutional lenders and tax policies favoring debt holding are all factors that contributed to the decline in common equities. Nevertheless, the value of common shares issued in 1978 reached a postwar peak of nearly \$1 billion, an impressive 35-percent increase above the preceding year.

Since 1974, however, the market for preferred shares has surged largely as a result of innovative features which combined some of the successful elements of bond issues, such as term contracts and variable yields, with the more flexible tax treatment accorded to equity issues. The annual value of preferred stock issues rose from less than \$200 million at the beginning of this decade to more than \$5 billion in 1978. The ability to issue such securities made it possible for firms to overcome cyclical problems, expand their business, acquire other firms or reorganize their financing. Despite the introduction in 1979 of a different tax treatment that eliminates some of the advantages of preferreds, they remain very popular with financial institutions.

The long-term financing requirements of Canadian corporations have been high relative to the moderate growth in capital expenditure. This is due to the fact that a number of corporations took advantage of favorable conditions in 1977 and 1978 in medium- and long-term markets to improve their financial position by substituting longer-term debt for some short-term obligations and by accumulating

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greater financial assets. Forecast improvements in capital expenditure for 1979, however, indicate that a larger part of new financing will be for new capital projects.

The secondary markets

In size, breadth and liquidity the Canadian secondary markets for equities rank behind only the United States and the United Kingdom. Trading in outstanding issues centers on Canada's five stock exchanges which are, in order of importance, Toronto, Montreal, Vancouver, Calgary and Winnipeg. Listing of the five exchanges totals more than 2,000 common and preferred issues and represents a total

value in excess of \$400 billion at current market prices. Both the trading and value have been heavy, some 2 billion shares being traded for a total value of \$12.7 billion in 1978 alone, which was a 62-percent increase over that of 1977.

The Toronto Stock Exchange dominates secondary equity markets, accounting for approximately 55 percent of the volume and 80 percent of the value of trading on all Canadian exchanges. The Toronto Stock Exchange's 300 composite index is widely used as the barometer of Canadian stock market performance. In the year ending in June 1979, the Canadian market outperformed all the world's major stock markets, according to a survey by *The Economist*. The stocks of 14 of the 20 largest foreign corporations in Canada (including U.S., British and European) are

listed on Canadian exchanges, and of the 1,250 companies listed on the Toronto Stock Exchange, approximately 150 are also listed on U.S. exchanges such as the New York Stock Exchange, the American Stock Exchange or the Pacific Stock Exchange.

The Canadian equity market differs from its U.S. counterpart in two important respects: in Canada there is relatively little over-the-counter trading in unlisted securities and Canadian stock exchanges maintain a schedule of fixed commissions, which is approved by provincial securities commissions and is generally uniform throughout the country.

Unlike the market for equities, the secondary market for bonds of Canadian governments and corporations is maintained by the securities dealers. The underwriters

of the issue (and for large corporate issuers or governments, several other dealers) usually transact trades on a continuous basis, whereas other securities firms will undertake occasional trades in bonds as dealers. This system may change however, as the Montreal and Toronto stock exchanges are considering the opening of bond markets.

Details of trading volume and price are not disclosed in dealer markets, but the securities firms keep customers informed about current bond prices. Another source of information is the financial press which publishes extensive lists of bond bid and ask prices provided by the Investment Dealers Association of Canada and the major bond dealers.

The buyers

Firms issuing securities find a satisfactory variety of private and institutional buyers in the Canadian capital market. During the current decade, the leading financial institutions – the banks, trust and insurance companies and pension funds – have attracted an increasing share of domestic savings. This has enabled them to meet the expanding financing requirements of governments and public agencies and still assume a progressively larger role as buyers of corporate securities. The role of individual investors, though still important, has been declining.

Pension funds are one of the principal buyers of long-term corporate securities. The assets of pension funds managed by trust companies total about \$30 billion. By the end of 1977, the value of Canadian corporate securities held by the pension funds amounted to over \$11 billion, comprising bonds (\$4.3 billion), shares (\$5.3 billion) and contributions to pooled or mutual funds (\$1.7 billion).

Though their share of business financing has decreased, life insurance companies are still among the leading buyers. At the end of 1977, they held over \$8 billion in company securities with \$6.6 billion in bonds and the rest in preferred or ordinary shares. Although mortgages still form the bulk of life insurance company assets, the proportion of these assets in corporate bonds and stocks has been growing.

Non-life insurance companies hold over \$2 billion in corporate bonds. Their market activity has also increased considerably, going from a mere 4 percent of corporate bonds in circulation in Canada in 1965 to their current 10-percent holding.

Banks have traditionally financed businesses by granting short- and medium-term loans. Recently, however, they have been engaging in long-term financing and, by the end of 1978, they held \$7.9 billion in Canadian business securities (bonds and shares). In 1977, they held only \$4.2 billion and in 1976, \$2.8 billion. This rapid growth is mainly due to the popularity of pre-

ferred and term shares and the fall in demand for short-term financing. Most of the additions to bank portfolios were negotiated directly with the banks as private placements. In 1978, Canadian banks provided 35 percent of the long-term financing for businesses in Canada compared to 12 percent in 1972.

The institutionalization of savings has encouraged the negotiation of private placements between businesses and financial institutions. In 1978, there were approximately the same number of private placements as there were public issues (55). Private placements offer the industrial entrepreneur greater flexibility in adjusting the financial instrument to his needs (for example, in terms of the due date) and are generally cheaper than public issues. The institutionalization of savings also brought about some innovations in the securities offered, such as the term preferreds mentioned above. These and other instruments, such as the sinking-fund or purchase-fund bonds and variable interest rate securities have generally been developed to meet the needs of institutional lenders.

Securities dealers: operations and regulations

Unlike the situation in some countries where banks play the leading role in securities trading, the role of the banks in Canada is overshadowed by the activities of the securities firms. This reflects the fact that chartered banks are prohibited from membership in stock exchanges. They are, however, active in the bond market and sometimes participate in primary equity offerings. Several large diversified securities firms are active in every phase of the market, acting as underwriters, dealers (principals) and brokers (agents) and serving retail and institutional customers nationally and internationally. Other firms specialize in specific market segments, such as the secondary equity market or the provincial or municipal bond markets. Still others serve particular types of clients, such as institutional investors, or operate in particular geographic regions. In all, there are over 100 dealers and brokers in Canada of which 81 are members of the Investment Dealers Association of Canada.

Corporations undertaking new security issues in the Canadian market normally use the services of an investment dealer to advise them on the type of security (debt, short- or long-term equity, common or preferred) and the specific attributes that will ensure buyer acceptance in prevailing market conditions. In the event of a public issue, the dealer will help the corporation to prepare a prospectus and other documents required by the provincial or stock exchange authorities. In their role as underwriters, securities firms will

negotiate a price for the securities with the issuing corporation and guarantee the proceeds. To market the issue, a "banking group" or syndicate of dealers may be organized by the underwriter, with each member of the group taking responsibility for a certain share of the issue. The difference between the price paid to the issuer and the price paid by the investing public represents the fee to the underwriter and banking group.

Since 1972, long-term corporate bonds in the Canadian market have been classified by Canadian firms through the use of a ratings system which is similar to those used by Moody's and Standard and Poor. Ratings vary between A**, usually given to very large domestic or multinational firms whose products or services are essential to the Canadian economy and who have shown their ability to face difficult economic and commercial situations, and D, which is given to firms whose issues are in default or who may be in the process of being liquidated.

Regulation of primary security offerings by corporations is a provincial responsibility and the conditions of an offering must comply with the terms of the various provincial securities and companies acts. To counteract the potential problems of having different provincial jurisdictions, provincial governments have been taking successful measures to bring about a considerable degree of uniformity in securities legislation and administration, and securities administrators in all provinces are seeking to introduce new legislation which will be compatible in all jurisdictions.

A number of requirements are imposed on issuers and underwriters when distributing new issues to the public. Such an offering normally requires the filing of a prospectus for approval by provincial securities commissions and its distribution to purchasers. Governments and chartered banks are, however, exempt from prospectus requirements as are private placements by other borrowers.

Although ultimate authority over securities firms rests with provincial securities commissions, the commissions recognize a self-regulatory role for the Investment Dealers Association of Canada, which directly regulates the activities of securities firms in underwriting and distributing primary offerings as well as dealing in the secondary bond market. Provincial legislation also gives self-regulatory authority to stock exchanges, who oversee the activities of market intermediaries (brokers) and listed corporations. Exchanges have established rules to ensure that the practices of member firms are seen to be fair and they oversee the financial position of securities firms. They also require listed corporations to publish specified financial information on a regular basis and to advise exchange officials and the public of unusual events which might influence the price of their shares.

Westinghouse Canada: beyond the branch plant

by Alan Darisse

Westinghouse Canada's role within the corporate family used to be to produce a full range of electrical products almost exclusively for the domestic market. In the early 1970's, however, the company concluded that changing domestic and international realities were detracting from the viability of that type of operation. Thus, the company began to pursue foreign markets more aggressively, to specialize in its most promising domestic businesses, and to develop opportunities for increased production in Canada through rationalization with company plants in the U.S. This signalled the end of the company's branch-plant era in Canada and the beginning of its current international activities.

The branch-plant era

Westinghouse first moved into Canada by establishing a manufacturing plant in Hamilton, Ontario in 1896, to produce air brakes for Canadian railroads. At that time, Westinghouse was also selling household appliances in Canada through a Canadian distributor. By 1903, Westinghouse had decided to expand its manufacturing facilities in Canada in order to produce a wide range of electrical products for the Canadian market. Thus, with the assistance of Canadian entrepreneurs, a Westinghouse affiliate was formed which was known until 1971 as Canadian Westinghouse Company Limited. This decision proved to be timely because it was in the early years of the 20th century that Canada, especially southern Ontario, experienced one of its greatest periods of industrial development, including light and heavy manufacturing and transportation. Most of this development was based on the expanding use of electric power.

From the factory to the marketplace, Canadian Westinghouse was run strictly on a Canadian basis. Operating behind a relatively high tariff wall, the company's role was to supply the Canadian market. The company flourished to the point of becoming Westinghouse's portfolio star, meaning that its profit performance was superior to that of any other Westinghouse subsidiary and even to that of its parent. In the first few decades of this century, it was a classic branch-plant success story. It was a broad-line company, producing almost every electrical product there was to produce in Canada and selling them primarily in this country.

In the 1950's, however, the company's management realized that the environment in which their branch plant had thrived was changing extensively. Among other things, the company found itself in a maturing industry which had a declining growth rate; the longstanding tariff protection was being progressively reduced; there were too many participants for the size of the market; and the company was becoming more and more vulnerable to

foreign competition. In light of these factors, management at Westinghouse Canada became increasingly concerned about the company's traditional reliance on the domestic market.

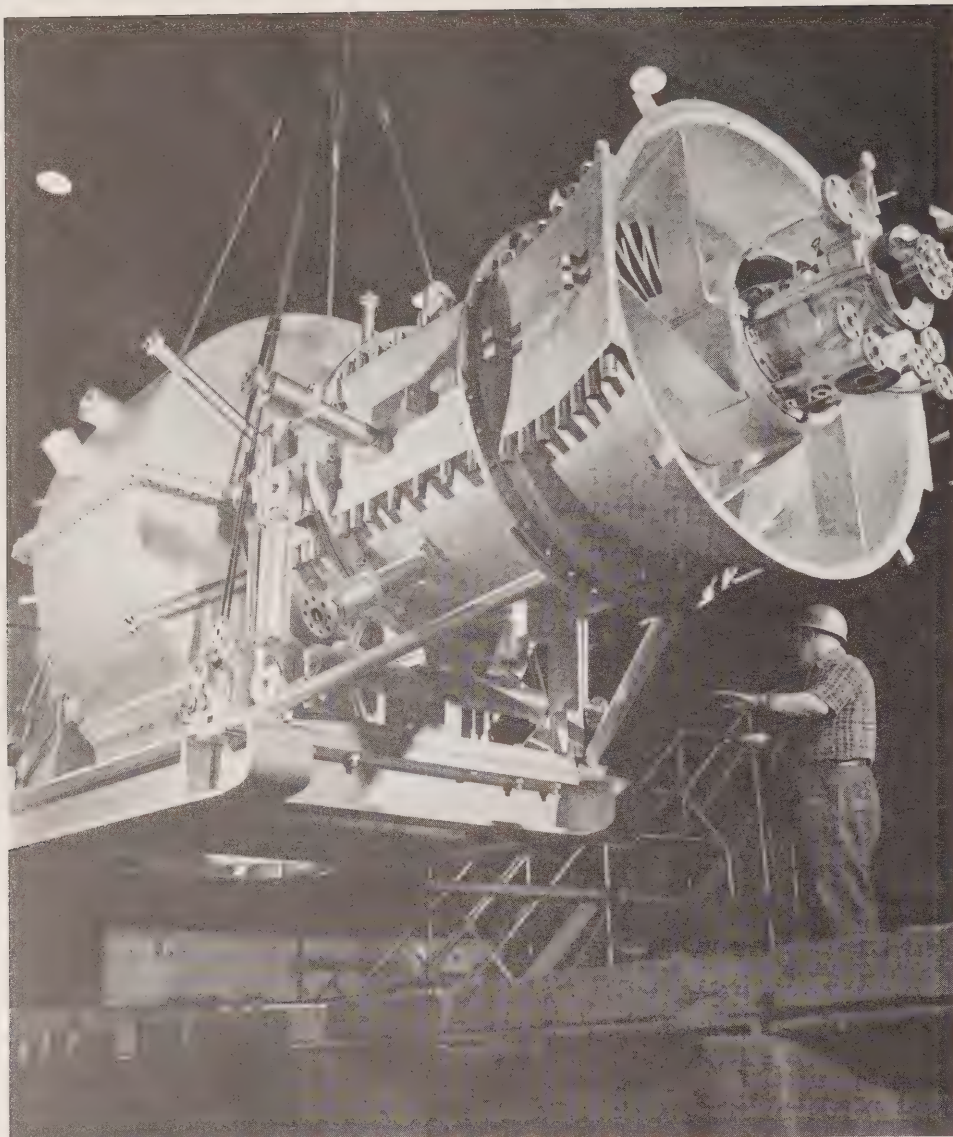
It was this concern that led to a complete reassessment of the company's activities and policies. Having analysed domestic and world market conditions, Westinghouse Canada concluded that it could no longer continue to be a broad-line company serving primarily the domestic market. To remain profitable, it would have to drop certain product lines. To grow, it would have to venture into the international market.

Westinghouse Canada: the international subsidiary

Cutting the unprofitable elements of a business is one thing, but identifying products and activities which offer the greatest potential is quite another. Westinghouse Canada could have narrowed its product range and continued to concentrate on the domestic market. But the company went further. While it did specialize in certain product lines and activities, the company decided that it was time to explore foreign markets as well as improve its competitiveness in the domestic market. The prime objective, therefore, was to broaden its market base.

The next step for Westinghouse was to rationalize production in some of its Canadian factories in a coordinated way with its U.S. factories in order to supply the North American market more efficiently. Another step was to change the company's attitude toward tariffs. Though they had contributed significantly to Westinghouse Canada's early development, they were no longer taken for granted. The company's planners decided to base their production and marketing strategy on the assumption that tariffs would be eliminated because, in so doing, they believed that the company would be better prepared and more competitive.

The most significant change in Westing-



Westinghouse Canada's worldwide charter includes products like this industrial gas turbine, slated for a desert irrigation project in Libya.

Photo: Westinghouse Canada

house Canada's strategy, however, was to acquire world charter rights or world product mandates. This meant that Westinghouse Canada acquired total responsibility, within the corporate family, for certain product lines, including control over research and development, design, manufacture and marketing from a Canadian base. It has stated publicly that world product mandates are its top priority in the allocation of investment funds. World product mandates offer several significant benefits to Canada. They almost invariably involve the type of product that is technology-intensive. They create jobs requiring not only factory know-how, but also managerial, professional and technical skills. World product mandates also result in more research and development activities being carried out in Canada. For example,

Westinghouse Canada spends from 6 to 10 percent of its sales of world mandate products on research and development, a rate which is considerably higher than the average for the industry as a whole.

Westinghouse Canada is now responsible for a wide range of such products, which it is successfully marketing all over the world. The company has sold its gas turbine products to 14 different countries in South America and the Middle East. One order from Libya was a turnkey operation involving the supply and installation of a power station, sub-stations and a transmission system for a large desert irrigation project. The company has also sold industrial steam turbines to some 30 countries. Westinghouse Canada's Model CW-352, a new high-efficiency gas turbine for mechanical-drive functions for pipelines and other services, has been success-

fully marketed in the United States and is world competitive.

The Electronics division of Westinghouse Canada also has world product mandates for several products which have been successfully marketed abroad. These include shipboard sonar, optical control line tracing equipment, and a range of video display terminals and data communication equipment now in use throughout the world. Other products for which the company has world charter responsibility include airport lighting systems, solid state excitation systems for controlling large generators, core form power transformers, and nuclear fuel for CANDU reactors.

These examples show that a substantial part of the Canadian operation is no longer in the branch-plant category. The company now serves the North American and other foreign markets with a range of products which have been designed, developed and manufactured in Canada. In fact, nearly 40 percent of the company's employees in the Hamilton and Burlington, Ontario area are employed in world mandate activities.

Exports currently represent about 17 percent of the company's sales and are accounted for almost entirely by world charter and rationalized production activity. It is expected that much of the company's future growth will come from the successful implementation of these export oriented strategies. Westinghouse Canada's vocation used to be to supply just what Canada needed; it has now been broadened to help supply what the world needs.

Westinghouse Canada received strong encouragement from its parent company when it proposed this restructuring of its product portfolio. It was perceived by the parent company that these changes would strengthen the Canadian subsidiary by improving its return on investment which had dropped below the average of the whole company.

Another reason for supporting the initiative of the Canadian subsidiary was that Westinghouse was seriously questioning whether its traditional branch-plant strategy was the best way of adapting to the increasing internationalization of business. The traditional strategy was to have only one home base for exports, research and development and decision-making. Given the rapid changes occurring in the international business community, Westinghouse concluded that its former branch-plant concept was no longer an appropriate strategy for its international operations.

The company, therefore, has been very supportive of the initiative taken by its Canadian subsidiary in adapting to changing domestic market conditions and accepting the challenge of competing in foreign markets. As a result, Westinghouse Canada has made good progress in breaking out of its now outmoded branch-plant role.

Investment opportunities in energy conservation

by Edward R. Lauer

Canada is a growing market for technology designed to improve energy utilization and conservation. Faced with an increasing energy bill, Canadian industry is seeking ways of becoming more energy-efficient. Both the federal and provincial governments have established information and incentive programs to reinforce efforts by private industry. Over the next several years there will be a growing need for expertise and technology which can improve the energy efficiency of everything from manufacturing processes to household appliances.

Although Canadian industry has traditionally enjoyed an abundant supply of relatively low-cost energy, it has always been an important cost factor for certain energy-intensive primary industries. However, the unprecedented oil-price increases of the 1970's have now made energy costs a significant factor across virtually the entire industrial spectrum. In some cases energy has come to represent up to 25 percent of total manufacturing costs. By 1974, government and business leaders realized that steps would have to be taken to improve energy utilization and conservation throughout all sectors of Canadian industry if they were to remain internationally competitive.

Government initiatives

Jurisdiction over energy in Canada is shared by the federal and provincial governments. While each level of government has acted on its own to promote better energy conservation and management, they also work together in a number of joint programs, a significant example being the *Energy Bus*, a mobile energy audit system which provides a free computerized analysis of existing plant energy utilization and potential savings. Provincial governments have also developed policies to complement, extend or expand those of the federal government.

The Government of Canada has mounted a major energy conservation initiative which includes policies and programs affecting energy use by all Canadians. In 1974, it established the Office of Energy Conservation to coordinate and spearhead activities in this area. The government has published over nine million consumer education booklets covering major topics such as insulation, vehicle operation and maintenance, recycling, and furnace servicing. Minimum mileage standards for new automobiles have been raised. Fiscal incentives have been pro-

vided to increase investment in more efficient electric power generation and waste heat reclamation equipment and to encourage use of insulation, solar equipment and heat pumps. In 1978, the government announced a \$380-million program of research and development directed towards solar energy development and towards recovery of energy from forest and urban wastes. On the policy side, in 1976 the Government announced a new energy strategy which dealt, among other things, with oil pricing and reduction in the rate of increase of energy consumption. The strategy called for gradual increases in domestic oil prices toward international levels and for an adjustment of domestic natural gas prices "to an appropriate competitive relationship with oil." The strategy also set 3.5 percent as the target annual rate of increase in total primary energy consumption, a figure significantly lower than the 1962-72 average of 6.3 percent. A subsequent government study proposed that an even lower 2-percent growth rate could readily be achieved. The strategy left no doubt that domestic oil and gas prices would have to rise in line with international trends and that the Government was giving top priority to energy conservation.

Business initiatives

In most energy-intensive sectors – pulp and paper, steel, chemicals, cement, non-ferrous metal smelting and refining – companies have been studying energy conservation and taking concrete action for some time. In the less energy-intensive general manufacturing industries, however, thousands of firms have only recently begun to look seriously at this matter. Though some still question the cost effectiveness of measures to improve their energy efficiency, most realize that the era of cheap energy is over and that they must now consider energy costs in

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Canada's Energy Bus is a shining example of how business and government can cooperate to make energy consumption more efficient.

Photo: Energy, Mines and Resources

much the same way as their offshore competitors traditionally have. Examples of significant accomplishments in both high and low intensity industries are provided below.

At its integrated chlor-alkali/petrochemical plant in Sarnia (Ontario), Dow Chemical of Canada, Limited installed a system to generate both electrical power and process steam which it calls the *Total Energy Concept*. Exhaust heat from a 117 MW gas turbine generator is recovered to produce steam used in a 55 MW generating unit, the exhaust from which becomes process steam. Dow achieves an overall cycle efficiency of 83 percent compared to the average of 38 percent in the conventional Canadian thermal power generating plant. Another example is the work done at 3M Canada Ltd.'s 57,000 square metre manufacturing facility in London (Ontario). Since 1973, the company has succeeded in reducing energy consumption per unit of production by 30 percent by means of conservation measures such as reduced temperatures and modified lighting systems for storage areas, extensive use of

timers for air exhaust systems, and recovery of waste heat from steam condensate and compressors.

There have also been industry-wide activities in energy conservation and management. In 1975, responding to the Canadian Government's call for voluntary industry sector task forces to direct the conservation effort, the Canadian Chemical Producers' Association, the Canadian Fertilizer Institute and the Rubber Association of Canada were the first to organize a new task force, and secured participation by 74 out of a possible 77 companies. Using an energy monitoring and reporting system developed in the U.S., the task force established a target of reducing unit energy consumption by 17 percent. Two months later, the task force sponsored the first of its industry energy conservation seminars. The seminars were eventually opened to all industrial firms, including those outside the chemicals sector. Other industry task forces, such as those covering textiles and transportation equipment, soon followed the chemical industry's lead with seminars structured to the

particular needs of their member firms. All these activities are an indication that a wide cross-section of Canadian industry is developing the expertise and technology necessary to improve energy efficiency.

Investment opportunities

From simple household appliance timers to sophisticated computers and monitoring systems for large office buildings, the demand for equipment to control or recover energy is rising sharply. Of particular importance for Canada's winter climate is equipment which can recover heat otherwise discharged outdoors and devices to control electrical power demand during peak winter periods.

Virtually all high energy-consuming end products are becoming candidates for redesign either through imposed standards, such as those dealing with gasoline mileage of automobiles, or through voluntary conservation measures such as energy labelling for major household appliances. More energy-efficient street lighting systems, improved residential furnace de-

signs, and adaptation of heat pumps for Canadian climatic conditions are other product development examples. As consumers and corporations begin to understand the potential cost savings to be realized from energy-efficient equipment and begin to revise traditional first-cost versus lifetime-cost concepts, purchase habits will change dramatically, creating a wide spectrum of opportunities for product innovation.

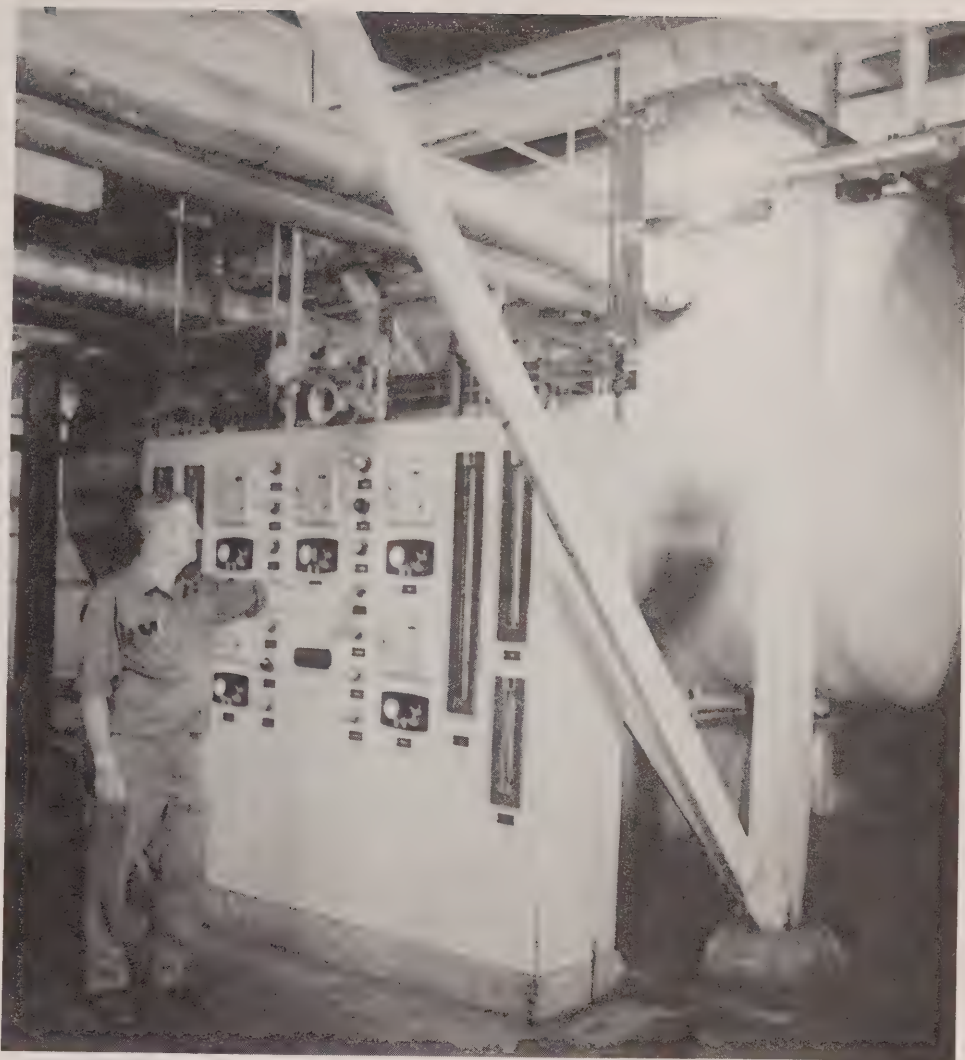
Inevitably, awareness of a savings opportunity creates a demand for those who are able to supply specialized services or know-how. Consultants, experienced in comprehensive energy management programs, are sought by firms wanting to correct energy inefficiencies and develop specific process modifications.

A number of investors have already begun to take advantage of some of the opportunities opening up in the energy-conservation field. In the 1978-79 fiscal year alone at least five new-business FIRA cases were related directly to energy conservation. One new business, ADT Energy Systems Ltd., was planning to provide energy consumption and monitoring services. Three new businesses, Jesse Equipment Ltd., Panelera Corp. (Canada) Ltd. and Pacific Enercom Inc., were planning to manufacture and market insulation. Another new firm, Standard Industries Ltd., proposed to manufacture rock wool fibre for use in insulation. Early in the 1979-80 fiscal year, the new-business proposal of Anga & Varne (Canada) Ltd., which planned to become involved initially in subcontracting and later in the manufacture of equipment for energy-recovery systems, was allowed.

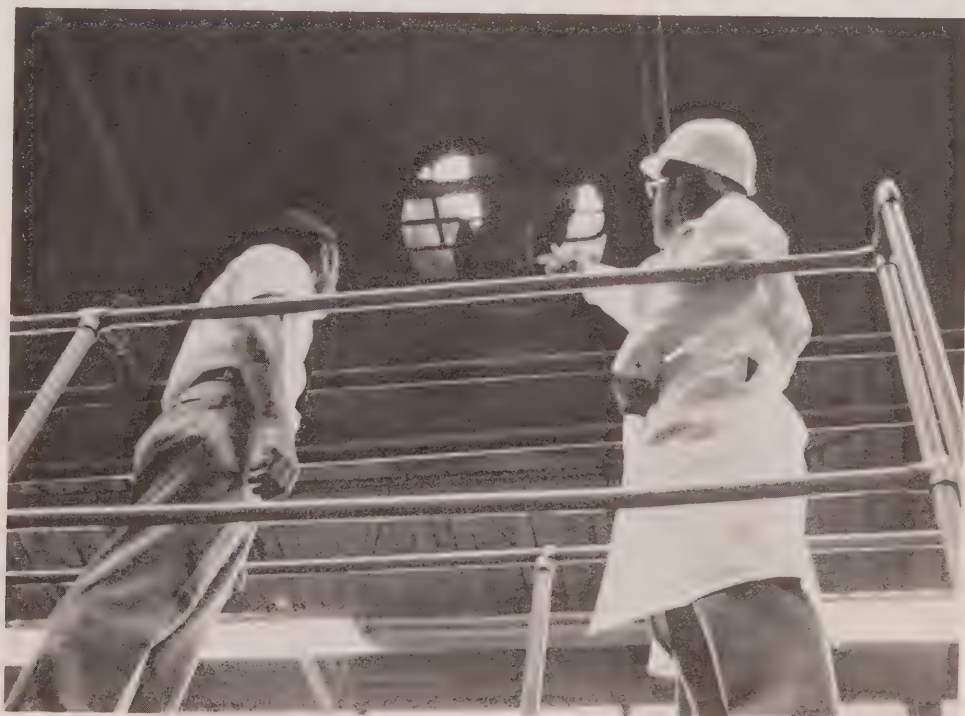
As Canada evolves from an era of unrestrained use of inexpensive energy to one of conservation, opportunities for innovation and investment will grow in all sectors of business and industry. Canada could benefit from the know-how of foreign industry which has historically faced higher energy costs and which has developed the expertise and technology necessary to cope with them. Foreign investment proposals that can assist Canada to achieve its energy conservation goals are likely, therefore, to rate highly in FIRA's assessment of "significant benefit to Canada".

An increasing number of firms are studying ways of improving waste-heat recovery in their plants.

Photo: Energy, Mines and Resources



Heating systems are high on the list of energy conservation targets.



Capital investment projects in Canada

Electric power, oil and gas, and mining

This list shows major capital spending projects now in progress or firmly committed in the electric power, oil and gas, and mining sectors. Only projects costing over \$10 million are included. Other sectors will be covered in subsequent issues of the Foreign Investment Review. Information has been obtained mainly from press reports verified, where necessary, by the companies concerned.

This report was prepared for the Foreign Investment Review by L.E. Dewis, Analyst with the Capital Expenditures Group, Economic Analysis Branch, Department of Industry, Trade and Commerce.

There are a number of extremely large electric power projects, some in almost every province. The James Bay hydroelectric project, which will include 4 generating stations and 44 generating units by 1985, will have an installed capacity of 10,420 MW and a production capacity of 67.8 billion kWh a year. Manitoba Hydro plans to triple the province's hydroelectric power capacity over a 10-year period. Thermal power plants are planned in Alberta and British Columbia, and nuclear generating plants are being constructed in Ontario and New Brunswick. Feasibility studies are being carried out on the further hydroelectric power development of the Churchill River in Newfoundland and a pre-investment study is underway on the possibility of harnessing tidal power in Nova Scotia's Bay of Fundy.

Activity in the oil and gas sector has never been more intense with exploratory and development completions up 8 percent in the first quarter of 1979 over the corresponding period of 1978, which itself was a record period. The average count of rigs drilling in the first quarter of 1979 rose to 380 from 295 in 1978, with Alberta, British Columbia and, to a lesser extent, Saskatchewan accounting for most of the increase. Completions were up in Saskatchewan and British Columbia, but were slightly lower in Alberta. Activity in 1979 will be at least as great as in 1978.

Mining activity will increase substantially in 1979 principally as a result of the rise in metal prices, the introduction of fiscal incentives and the reduction of taxation. These and other elements have fortified confidence in Canada's mining future and will be translated into increased expenditures over the next few years. Development of the Highmont copper-molybdenum ore deposits in British Columbia is just one of several major mining projects. In addition, large capital expenditures are being made for uranium exploration and development in northern Saskatchewan.

Company and project description		Completion date	Cost (\$ million)	Location
British Columbia				
Electric power				
New power plants				
B.C. Hydro and Power Authority	hydro	1984	1,200	Revelstoke
	hydro	1980	271	Pend d'Oreille River
	hydro	1980	410	Peace River
Weldwood of Canada Ltd.	thermal	n.a.	508	Hat Creek
and Luscar Ltd.	thermal	n.a.	50	Campbell River
Oil and gas				
Westcoast Transmission Co. Ltd.	pipeline	1979	28.5	Fort St. John
	pipeline	1980	150	Fort St. John
	pipeline	1980	80.5	Chetwynd to Huntingdon
	gas processing	1979	75	Pine River
Mining				
Teck Corp.				
Copper-molybdenum mine		1981	150	Highland Valley
Carolyn Mines Ltd.				
Gold mine		1980	19.3	Near Hope
Equity Mining Corp.				
Silver-copper mine		1980	85	South of Houston
Noranda Mines Ltd.				
Copper mine		1979	19	Granisle
Climax Molybdenum Corp.				
Increased mill capacity		1981	143	Alice Arm
Cominco Ltd.				
Expansion and modernization program		1985	425	Trail and Kimberley
Newmont Mines Ltd.				
Similkameen Division				
Copper mine expansion		1981	23.4	Near Princeton

Alberta

Electric power

New power plants

Calgary Power Ltd.

thermal	1983	500	Keephills
thermal (last unit)	1980	100	Sundance

Alberta Power Ltd.

thermal	1985	750	Sheerness
thermal	1981	242	Battle River

Edmonton Power

proposed thermal	1986	500	Genesee
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Oil and gas

Esso Resources Canada Ltd.

Oil sands plant

1985	5,000	Cold Lake area
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Alsands Project Group

Oil sands plant

1986	5,000	Fort McMurray
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Great Canadian Oil Sands Ltd.

Oil sands plant expansion

1981	185	Fort McMurray
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Turbo Resources Ltd.

Oil refinery

1980	50	Near Edmonton
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Alberta Energy Co. Ltd.

Synthetic natural gas plant

1980	162	Fort Saskatchewan
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Mining

Forestburg Collieries Ltd.

Surface coal mine

1982	110	Near Sheerness
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Saskatchewan

Oil and gas

Husky Oil Operations Ltd.

Petro Canada and Saskatchewan Oil and Gas Corp.

Heavy oil exploration

1986	100	Lloydminster area
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Husky Oil Ltd.

Upgrading plant

1985	700	Lloydminster area
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Mining

Amok Ltd.

Uranium mine and mill

1981	168	Cluff Lake
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Saskatchewan Mining Development Co.,

Uranerz Canada Ltd. and Eldorado Nuclear Ltd.

Uranium mine

1981	100	Key Lake
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Eldorado Nuclear Ltd.

Additions and alterations to nuclear refinery

1980	45	Uranium City
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Manitoba

Electric power

New power plants

Manitoba Hydro

hydro	1979	600	Long Spruce, Nelson River
hydro	1979	178	Jenpeg, Nelson River
hydro	1987	1,100	Limestone, Nelson River

Ontario				
Electric power				
New power plants				
Ontario Hydro	nuclear	1985-88	5,000	Darlington, Lake Ontario
	nuclear	1983-86	2,800	Bruce B, Lake Huron
	thermal	1983-84	535	Atikokan
	nuclear	1981-83	2,500	Pickering, Lake Ontario
	thermal	1980-81	322	Thunder Bay
	thermal	1980-	28	Windsor
Great Lakes Power Co. Ltd.	hydro	1982	95	St. Mary's River
Mining				
Campbell Red Lake Mines Ltd.				
Expansion, gold mine and mill		1982	10.4	Kenora
Rio Algom Ltd.				
Expansion, uranium mine		n.a.	100	Elliot Lake
Eldorado Nuclear Ltd.				
New uranium refinery		1982	100	Near Port Hope
Québec				
Electric power				
New power plants				
Société d'énergie de la Baie James	hydro	1979-85	16,000	James Bay area
Hydro Québec	hydro	1985	750	Manic River
	hydro	n.a.	1,000	Ste Anne River
Oil and gas				
Trans Canada Pipelines Ltd.				
Gas pipeline		n.a.	88	Montréal to Trois-Rivières
Imperial Oil Ltd.				
Refinery alterations		1980	92	Montréal
Golden Eagle Canada Ltd.				
Refinery upgrading		1980	60	St. Romuald
Mining				
Alcan Aluminum Ltd.				
New aluminum smelter		1981	200	La Baie
Bell Asbestos Mines Ltd.				
Expansion		1982	14	Thetford Mines
Dumagami Mines Ltd.				
Molybdenum mine		1980	11	Cadillac
Atlantic Region				
Electric power				
New power plants				
Newfoundland and Labrador Hydro Commission	thermal	1980	72	Holyrood, Nfld.
	hydro	1981	80	Hinds Lake, Nfld.
	hydro	1982	155	Upper Salmon River, Nfld.
Lower Churchill Development Corp.	hydro	n.a.	2,500	Gull Island, Nfld.
Nova Scotia Power Corporation	thermal	1979-80	200	Lingan, N.S.
	hydro	n.a.	8,000	Bay of Fundy, N.S.
New Brunswick Electric Power Commission	nuclear	1980	895	Point Lepreau, N.B.
Oil and gas				
Esso Resources Ltd.				
Exploratory drilling		1980	60	East Coast
Texaco Canada Inc.				
Exploratory drilling		1980	25	East Coast
Mobil Oil Canada Ltd.				
Exploratory drilling		1980	14	Sable Island, N.S.
Mining				
Denison Mines Ltd.				
Potash mine		1985-86	150	Sussex, N.B.
Brunswick Tin Mines Ltd.				
Tungsten-molybdenum mine		1980	35	Mount Pleasant, N.B.
Brunswick Mining and Smelting Corp. Ltd.				
Zinc-lead mine		1980	53	Belledune Point, N.B.

Provincial incentives

In an effort to attract new investment and industry, Canada's provincial governments have developed a range of programs designed to provide professional, technical and financial services to both foreign and Canadian firms. These incentive programs vary from province to province according to their economic vocation, industrial structure and priorities. In addition to providing technical assistance, such as the information and advisory services offered usually by their departments of industry and commerce, several provinces have created economic development corporations which offer financial assistance in the form of subsidies, loan guarantees and participation in share capital. Other provincial corporations work with industry to take advantage of certain market opportunities. All these provincial incentives should be viewed together with the federal government's programs and services. The latter were described in the last issue of the Review (volume 2, number 2). For further information on federal programs, readers should consult ABC, Assistance to Business in Canada, which is a handbook published by the Board of Economic Development Ministers (Catalogue no. ID31-61/1979). In it the reader will find a useful description of the financial assistance, tax incentives and range of services offered by the Government of Canada to business.

Newfoundland

"Energy" could become a key word in Newfoundland's future economic vocabulary. The province has already harnessed enormous reserves of hydroelectric power. In addition, several years of intensive offshore oil exploration have produced some very promising results. Currently, however, the cornerstones of the province's economy are fishing, pulp and paper and mining, particularly iron ore. Uranium and gold have also been found. Newfoundland has a limited manufacturing sector in electronics and food and beverages. The province's scenic beauty and unique folklore have made it the site for the development of a significant tourist industry.

Newfoundland and Labrador Development Corporation Limited

The Corporation assists small- and medium-sized business enterprises in the primary and manufacturing sectors to carry out capital projects not exceeding \$2.5 million by lending up to 80 percent of the total capital costs for up to 15 years at the prevailing interest rate. The Corporation can provide up to 49 percent

of equity requirements with holdings to be in the form of preference shares. **Contact:** Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5

Department of Industrial Development

The Department has a marketing and product development program for small- and medium-sized companies in which it provides up to 50 percent of a project's total cost, which cannot exceed \$50,000. For small amounts up to 75 percent of the project cost may be provided. **Contact:** Department of Industrial Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7

Department of Rural Development

The Department offers rural development authority loans to encourage the development of small resource-based industries. It provides interest-free loans of up to \$20,000 for the purchase of land or buildings, or the construction or renovation of buildings, and the purchase of

equipment and machinery. Loans can also be used for working capital. **Contact:** Department of Rural Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7

Department of Fisheries

To encourage the secondary and final processing of fish and fish products, the Department provides loans, interest free for the first two years if principal repayment is within program guidelines, for the purchase of suitable machinery and equipment approved by the Department.

Contact: Department of Fisheries, Atlantic Place, Water Street, St. John's, Newfoundland, Canada A1C 5T7

A number of other programs are available. Interested readers should contact the Planning and Priorities Secretariat, Executive Council, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7

Prince Edward Island

Prince Edward Island is Canada's smallest province. Traditionally, agriculture and fishing have been its economic cornerstones. The Island's charming scenery has made tourism one of the province's principal industries. In recent years, however, the province has enjoyed considerable industrial growth, notably in specialized manufacturing and food processing. This has added greater balance to the province's economy. Prince Edward Island has two significant industrial programs for the development of light industry.

Industrial Enterprises Incorporated

This organization provides serviced lands and facilities in industrial parks at attractive rates and flexible terms. It also provides assistance for capital expenditures in the form of first mortgage loans on real estate and equipment. **Contact:** Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0

Industrial Assistance Program

Administered by the Department of Industry and Commerce, the program provides financial assistance in the form of

interest-free forgivable performance loans (FPL) to manufacturing and processing businesses, as well as to selected service industries. Eligible manufacturing and processing businesses may receive a maximum FPL of up to \$30,000 for any one project. In addition, the program provides assistance for the purchase of new, used or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. Financing for the program is on a joint federal-provincial basis. **Contact:** Department of Industry and Commerce, P.O. Box 2000, Charlottetown, Prince Edward Island, Canada C1A 7N8

Nova Scotia

A peninsula situated on the Atlantic coast, Nova Scotia has developed an international reputation for its oceanographic and aquacultural research. Fishing is naturally one of the province's most important industries. Nova Scotia has a long mining history with its significant deposits of coal, zinc and copper. In addition, the province has been the setting for considerable offshore oil exploration. Manufacturing in Nova Scotia is based principally on resource processing, although companies such as Crossley-Karastan, Volvo and Michelin have an increasing input to the economy of the province. There is also a growing number of high technology industries related to ocean industry, an area which is receiving keen attention from business and government as the province trains its attention to profiting from the 200-mile economic zone. The province also has a vigorous tourist industry. Nova Scotia is and has always been an active trading province, as is shown by the tonnage which passes through its capital, Halifax, which also is one of the largest ports on the east coast.

Industrial Estates Ltd.

Industrial Estates Ltd. is a crown corporation for the development of secondary industry in Nova Scotia. It provides long-term loans on 20-year first mortgages on 100 percent of the cost of new land and buildings of secondary manufacturers and up to 60-percent financing of new machinery with 10 years to repay. Minimum loan financing available under this program is \$150,000. **Contact:** Industrial Estates Ltd., 5151 George Street, 7th floor, Halifax, Nova Scotia, Canada B3J 1M5

Also - Industrial Development Manager, Industrial Estates Limited, Niederkasseler Kirchweg 95, 4000 Dusseldorf 11, Germany.

Nova Scotia Department of Development

The Nova Scotia Department of Development is responsible for the development of businesses and industries. It offers loans to primary industries, tourism and fishing through the Nova Scotia Development Board. The department also has specific assistance programs in marketing, management development, product design and development and opportunity identification, as well as a rural industry program offering capital grants to businesses wishing to expand, establish or modernize outside the Halifax-Dartmouth area. An industrial malls program encourages new small businesses and industries with rental and other assistance in the first year of their existence. Other programs are offered by the departments of agriculture, lands and forests, tourism, labour, fisheries and education which may be relevant to businesses and industries. **Contact:** Nova Scotia Department of Development, 5151 George Street, Halifax, Nova Scotia, Canada B3J 1M5

New Brunswick

New Brunswick offers some very real geographic advantages to investors; on one side of the province is its common border with the United States and on the other, its seaports provide easy access to both North American and European markets. As a result, New Brunswick is an important trade area on the Atlantic coast. Agriculture, forestry and mining are all important economic activities in the province. In recent years, manufacturing has grown significantly, particularly pulp and paper, food processing and non-ferrous metals.

Department of Commerce and Development

The Department offers firms established in New Brunswick an extensive support program in the areas of management, marketing, production and distribution. The Department also seeks out and processes new industrial projects, and evaluates applications for financial assistance submitted to the New Brunswick Industrial Development Board by entrepreneurs

wishing to establish businesses in New Brunswick. **Contact:** *The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1*

New Brunswick Industrial Development Board

The Board offers financial assistance to firms in the form of direct loans, bond or loan guarantees, or the acquisition of shares. The Board also administers a joint federal-provincial grant and loans program for small businesses. **Contact:** *The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1*

Provincial Holdings Ltd.

This Crown corporation has holdings in the share capital of manufacturing companies located in New Brunswick. The agency can hold equity in manufacturing and processing industries that wish to become established in New Brunswick. **Contact:** *The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1*

Quebec

Quebec has a wealth of natural resources on which it can base further economic expansion. The province has a relatively strong industrial base, particularly in aeronautics, shipbuilding and public transport equipment. It has strong growth prospects in the machinery and electrical products industries. Quebec's tremendous reserves of hydroelectric power, available at a very competitive price, make the province an attractive location for the development of highly productive manufacturing industries, particularly in the electrometallurgical and electrochemical sectors. Also worth mentioning are Quebec's relative strength and technological competence in transport equipment, communications instruments, electrical equipment and pharmaceuticals.

Quebec Industrial Development Corporations (QIDC)

The QIDC is the Government of Quebec's principal tool for providing financial assistance to manufacturing firms estab-

lished in Quebec. This assistance is offered in different forms according to the nature and needs of the recipient firm: loans at prevailing market interest rates; partial reimbursement of debt costs; partial reimbursement of loans when certain criteria are met; and participation in share capital. **Contact:** *Quebec Industrial Development Corporation, 1126 Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5*

Fiscal incentives for industrial development

These incentives are based on an industrial development fund designed to assist small- and medium-sized firms through fiscal abatement and a tax rebate to encourage regional industrial development in the manufacturing sector. **Contact:** *Industrial development fund administration, Department of Industry and Commerce, 710 Place d'Youville, Room 403, Quebec, Quebec Canada G1R 4Y4*

Department of Industry and Commerce

The Department provides technical services to firms in marketing, financing, management, manpower and production, the negotiation of licensing agreements, market studies and statistics. It has permanent delegations or economic counsellors in Atlanta, Boston, Brussels, Chicago, Dallas, Dusseldorf, London, Los Angeles, Milan, New York, Paris, Tokyo and Toronto. **Contact:** *Quebec Department of Industry and Commerce, Industrial Promotion Branch, 1 Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6*

Quebec enterprise development corporations (SODEQ)

These are private corporations that invest in small- and medium-sized Quebec manufacturing firms to which they offer management assistance. **Contact:** *Department of Industry and Commerce, Enterprise services branch, 710 Place d'Youville, 8th floor, Quebec, Quebec, Canada G1R 4Y4*

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned societies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM) oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and

forestry (REXFOR). **Contact:** *Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.*

Processing firms can also receive exemptions from the provincial sales tax on certain products, tax rebates on fuel purchases and on industrial machinery used for processing in Quebec.

Ontario

Ontario is one of Canada's most important centres of economic activity. Of all the provinces, it has the largest number of manufacturing firms and is the home of numerous head offices. Its capital, Toronto, is the financial heart of this country and the service industry is highly concentrated there. Its most important industries are automobile manufacturing, steel, tourism, mining and pulp and paper. Investments are expected to reach \$17 billion in 1979. The provincial government has set up a \$200-million fund designed to attract investments.

Development corporations

Ontario has three development corporations: The Ontario Development Corporation, the Northern Ontario Development Corporation and the Eastern Ontario Development Corporation. All three assist the manufacturing and service industries, the tourist industry and exporters who want to expand or establish new facilities or to market new products and technology. This assistance includes industrial mortgages and leasebacks, export assistance funds, business capital loans, small business loans, loans for promoting the tourist industry and loans for encouraging industries to settle in or expand into areas of slow economic growth. **Contact:** *Ontario Development Corporation, Mowat Building, 900 Bay Street, Toronto, Ontario, Canada M7A 2E7*

Ministry of Industry and Tourism

Ontario's Ministry of Industry and Tourism offers industry services to manufacturing companies and service industries to expand in the province, to find new business opportunities, to seek out and apply new technologies, to establish new pro-

duction facilities and to market their products domestically and internationally. It also makes available an array of trade services to identify and develop export markets, to assist selected industries to increase export market penetration, to identify and develop import replacement opportunities and to help target industries increase their share of the domestic market. **Contact:** *Ontario Ministry of Industry and Tourism, Parliament Buildings, Queen's Park, Toronto, Ontario Canada M7A 2E1*

Manitoba

Gateway to Canada's West, Manitoba has an economy based primarily on agriculture and mining. In recent years, however, the province has seen its economic base expand and diversify as a result of a growing manufacturing industry which is less closely tied to natural resources.

Department of Economic Development

For the next four years, the major thrust of the Department's programs for business will be the \$44-million federal-provincial Industrial Development Agreement known as Enterprise Manitoba, whose purpose is to stimulate growth in the manufacturing sector by focussing on five specific industries: aerospace-electronics, food and beverages, health care products, light machinery and transportation. In addition to the direct funding assistance provided to business by Enterprise Manitoba, the Department provides strong service support through its pool of experienced industrial consultants.

The Department offers a variety of programs to business. The Rural Small Enterprise Incentives Program provides interest-free forgivable loans to manufacturing, processing or related maintenance or repair businesses: for new firms, the loans are on the basis of 50 percent of eligible capital costs up to \$30,000; for existing businesses, they are on the basis of 30 percent of eligible capital costs up to \$18,000. To be eligible, businesses must have yearly sales not exceeding \$500,000 and be located outside Winnipeg and adjacent municipalities.

Advance factory space will be provided in one of the two Enterprise Development Centres planned for Brandon and Winnipeg to businesses that are new or that are introducing a new product or are em-

barked on a marked departure from previous operations. Self-contained modules of factory space, ranging in size from 1,350 m² to 3,600 m², will be offered to businesses on a cost-shared basis. Also offered through the Enterprise Development Centres, specifically for small manufacturing firms, are technical and business consulting services for the purpose of improving products, sales and profitability, upgrading management skills, and starting or expanding businesses. Expertise will be available generally through staff resources at the Centres, but provision has been made for cost-sharing of up to 50 percent of the cost of hiring private consultants when highly specialized expertise is required.

The Department also has a Human Resources Management program which offers educational programs and courses to Manitoba businesses to assist them in upgrading their management skills, specifically as they relate to human resources. **Contact:** *Department of Economic Development, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8*

Market Development Group

The Market Development Group coordinates export sales and administers a promotional assistance program which provides cost-shared financing for participation in trade fairs and missions, assistance related to incoming buyers and general promotional activities.

The Manitoba Trading Corporation, an arm of the Market Development Group, provides export financing by extending credit to agents, distributors and organizations. The Corporation may act as an export merchant by taking title to presold export orders, or may act as an agent.

Contact: *Market Development, Department of Economic Development, 7th Floor, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8*

Manitoba Design Institute

The Institute provides consulting and advisory services for market research, design and redesign of products, graphic materials and packages. Assistance funding is also made available. **Contact:** *Manitoba Design Institute, 155 Carlton Street, Winnipeg, Manitoba Canada R3C 3H8*

Manitoba Research Council

The Council provides technical assistance by industrially experienced scientists

and engineers in the general area of product and processes development, raw material selection and testing, product testing, quality control, product costing and so on. **Contact:** *Manitoba Research Council, 510-155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8*

Saskatchewan

Saskatchewan is Canada's most important agricultural province and, given the importance of this industry to the province's economy, it is not surprising that a number of agricultural equipment manufacturers have established themselves there. In addition, Saskatchewan is the home of the Canadian West's largest steel industry and its production of iron and steel products has been steadily growing. The province has a special interest in industries related to food processing, electronics, plastics, pharmaceuticals and those supplying its growth resource sector, particularly petroleum, uranium and potash.

Department of Industry and Commerce

The department of Industry and Commerce offers a multitude of development programs to assist manufacturers and processors located in the province. These include: the Aid to Trade Program for manufacturers who wish to extend their market areas through promotion; the Product Development Program to help develop new products and special processes, to improve products and to finance tests; the Management Development Program; the Small Business Interest Abatement Program and the Small Industry Development Program. These programs provide assistance up to 50 percent of approved costs, except for the latter which provide forgivable loans, according to region and population, and abatement grants.

Contact: *Saskatchewan Department of Industry and Commerce, Power Building, 7th floor, Regina, Saskatchewan S4P 3V7*

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial

land for lease or sale. **Contact:** Saskatchewan Economic Development Corporation, 1106 Winnipeg Street, Regina, Saskatchewan, Canada S4R 6N9

Alberta

With its abundant petroleum, natural gas and coal resources, Alberta is Canada's most important energy-producing province. In addition to intense exploration and development activities in Alberta's conventional and non-conventional energy resources, the manufacturing and service sectors have grown extensively. Alberta is also an important agricultural producer, particularly in grains and livestock. The volume of government revenues from petroleum production royalties and exploration and development permits has made it possible for Alberta to have the lowest personal and corporate income tax rates in Canada.

Department of Economic Development

The Department offers a variety of services relevant to industry. Its Strategic Planning Services are responsible for coordinating economic activity related to a number of government departments. Its Industry Development Branch has as its goal to improve the performance of Alberta's manufacturing and processing industries by means of sector development programs, business expansion assistance and new-business establishment programs. The Department offers marketing services, seeking to match product and manufacturing capacities with domestic and foreign market opportunities as well as assisting business on marketing problems. The Department also offers trade-development services by assisting the industrial and consulting sectors to expand export sales through trade shows, exhibits, missions, joint ventures and licensing opportunities. **Contact:** Department of Economic Development, Government of Alberta, Industry Development Branch, 14th Floor, Capitol Square, 10065 Jasper Avenue, Edmonton, Alberta, Canada T5J 0H4

Alberta Opportunity Company

The company provides funds for growth, expansion and diversification of industry when other forms of conventional

financing are not readily available. This includes direct loans at market rates for up to 15 years and loan guarantees. Emphasis is placed on small business in smaller communities. **Contact:** Alberta Opportunity Company, P.O. Box 1860, Ponoka, Alberta, Canada T0C 2H0

Department of Tourism and Small Business

The Department has programs for the development of Alberta as a year-round destination for tourists by offering marketing and development services to the tourist industry and small business throughout Alberta. **Contact:** Department of Tourism and Small Business, Government of Alberta, 1021 Legislative Building, Edmonton, Alberta, Canada T5K 2B6

British Columbia

Canada's Pacific province, British Columbia has an extensive export-oriented resource-based economy in which forestry, mining, fishing and agriculture predominate. British Columbia's geographical position has made it a natural site for the development of important export industries with direct access to Pacific Rim and other world markets. In fact, the province's largest city, Vancouver, is Canada's gateway for trade with Japan, China and other Asian countries, the Western United States, Latin America and Europe. British Columbia's principal manufacturing firms are closely tied to the province's natural resources, essentially forest products, pulp and paper, mineral commodities and hydrocarbons. Several of the province's industries have recently experienced substantial growth with pulp and paper, lumber and plywood production and fish products heading the list.

Ministry of Economic Development

The Ministry offers a variety of programs designed to stimulate industrial and export development, especially in secondary manufacturing. Its export services include programs related to trade missions, market development, incoming buyers and trade shows. The Ministry's technical services assist companies to expand their facilities, diversify their product lines or establish new businesses by means of financial

support for hiring outside professionals to help develop corporate plans and operations.

The Ministry also coordinates and manages a number of federal-provincial programs designed to encourage the economic and industrial development of the province. One such program is a \$70-million agreement to provide assistance for research, regional economic development commissions, small business and community industrial development (industrial parks, sites, malls and advance factory space). A \$60-million agriculture and rural development program provides assistance for research, planning, training, market promotion, coordinated resource management, primary resource development, support services and community development. A third program, the result of a \$50-million agreement, provides assistance to the province's tourist industry. All these programs have geographical target areas which generally exclude the areas in and around Vancouver and Victoria. **Contact:** Director, Business Development, Ministry of Economic Development, Robson Square, 800 Hornby Street, Vancouver, British Columbia, Canada V6Z 2C5; or, Assistant Deputy Minister, Program Implementation and Coordination Branch, Ministry of Economic Development, Parliament Buildings, Victoria, British Columbia, Canada V8V 4R9

British Columbia Development Corporation (BCDC)

The BCDC provides financing in the form of term loans, loan guarantees, performance bonds, indemnities to chartered banks and leasing of buildings. While there is no limit on the amount of funds the Corporation may provide, in large-scale projects it prefers to provide assistance in conjunction with other financial institutions. As well as its own corporate lending activity, the BCDC administers the province's Low Interest Loan Assistance Program by virtue of which loans can be made to manufacturing or processing businesses that wish to modernize, expand or establish in the less developed areas of the province. Finally, the BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the Land Development Division. The BCDC acts as project manager of large capital projects in British Columbia. **Contact:** British Columbia Development Corporation, 272 Granville Square, 200 Granville Street, Vancouver, British Columbia, Canada V6C 1S4

Statistical Tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status					First six months	
	1975	1976	1977	1978	1978	1979
Reviewable new cases	166	171	261	360	176	195
Carryover from previous period	52	54	65	73	73	106
Total of above	218	225	326	433	249	301
Total resolved	164	160	253	327	176	172
Allowed	116	124	231	282	153	152
Disallowed	21	19	12	28	11	5
Withdrawn	27	17	10	17	12	15
Carried over to next period	54	65	73	106	73	129
Allowed cases as percent of resolved (%)	71	78	91	86	87	88
Value of assets, all cases (\$000,000)	1,070	1,069	1,145	4,491	1,602	2,138

Table 2 — Country of control					First six months	
	1975	1976	1977	1978	1978	1979
Total	166	171	261	360	176	195
United States	116	109	171	243	127	139
United Kingdom	15	23	40	47	21	25
Other Europe	27	34	41	52	21	25
Austria	-	-	-	-	-	1
Belgium	2	1	2	1	-	2
Denmark	-	-	2	1	1	-
France	6	6	6	5	3	6
Germany, West	2	10	15	17	-	1
Greece	-	-	-	-	-	-
Italy	2	1	3	1	-	-
Liechtenstein	2	-	-	1	-	-
Luxembourg	-	3	-	1	-	-
Netherlands	5	-	4	8	3	-
Norway	1	-	-	1	7	9
Sweden	2	9	2	7	5	4
Switzerland	5	4	7	9	2	2
All other	8	5	9	18	7	6
Australia	1	-	1	-	-	-
Bermuda	2	1	-	-	-	1
Japan	2	3	3	7	2	1
Others	3	1	5	11	5	4
Allowed cases as percent of resolved	%	%	%	%	%	%
United States	77	73	91	87	89	89
United Kingdom	79	82	95	78	80	90
Other Europe	50	86	90	89	86	83
All other	30	100	80	80	60	89

Table 3 — Industrial sector					First six months	
	1975	1976	1977	1978	1978	1979
Total	166	171	261	360	176	195
Primary	18	15	20	30	15	18
Agriculture, fishing and trapping	1	2	4	5	5	1
Forestry	1	-	1	1	1	-
Mines, quarries, oil wells	16	13	15	24	9	17
Manufacturing	82	93	108	161	86	88
Food, beverage and tobacco	11	9	15	15	4	7
Rubber, plastic and leather	3	4	6	12	7	1
Textiles, knitting and clothing	3	3	5	4	2	7
Wood, furniture and paper	10	7	12	14	10	4
Printing, publishing, and allied	3	1	2	4	3	2
Primary metal and metal fabrication	9	19	12	20	11	14
Machinery and transport equipment	17	7	14	27	17	27
Electrical products	9	11	12	16	5	12
Non metallic mineral products	3	9	5	8	6	3
Petroleum and coal products	-	2	1	1	-	-
Chemical	11	15	10	22	10	9
Miscellaneous	3	6	14	18	11	2
Construction and services	66	63	133	169	75	89
Construction	2	2	3	1	-	3
Transportation, communication, utilities	6	9	10	11	3	3
Trade	37	38	72	102	43	54
Finance, insurance, real estate	14	8	15	19	10	3
Community, business, personal services	7	6	33	36	19	26

* Provision for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status					First six months	
	1975	1976	1977	1978	1978	1979
Reviewable new cases	6	196	328	331	145	182
Carryover from previous period	-	6	58	52	52	64
Total of above	6	202	386	383	197	246
Total resolved	-	144	334	319	146	158
Allowed	-	115	297	273	118	139
Disallowed	-	9	12	21	14	7
Withdrawn	-	20	25	25	14	12
Carried over to next period	6	58	52	64	51	88
Allowed cases as percent of resolved (%)	-	80	89	86	81	88
Planned investment, all cases (\$000,000)	5	324	803	323	129	107

Table 5 — Country of control					First six months	
	1975	1976	1977	1978	1978	1979
Total	6	196	328	331	145	182
United States	4	90	184	193	92	111
United Kingdom	-	22	30	26	10	18
Other Europe	1	63	85	80 ^R	33	32
Austria	-	-	-	3	1	-
Belgium	-	1	-	1	-	1
Denmark	-	5	6	4	3	1
Finland	-	1	1	1	2	1
France	-	9	17	16	1	3
Germany, West	-	22	26	18	7	4
Greece	-	-	1	1	-	-
Ireland	-	-	-	1	3	3
Italy	1	9	10	10	-	-
Liechtenstein	-	2	-	-	-	-
Luxembourg	-	-	-	1	-	-
Monaco	-	-	1	-	-	-
Netherlands	-	2	3	1	1	1
Norway	-	-	3	3	1	1
Portugal	-	-	-	1	-	-
Spain	-	1	-	2	7	9
Sweden	-	3	9	5	2	2
Switzerland	-	8	8	12	5	6
All other	1	21	29	32 ^R	10	21
Australia	-	2	3	3	-	1
Hong Kong	-	3	3	3	2	1
India	-	3	1	1	-	1
Japan	-	4	10	6	2	6
Others	1	9	12	19 ^R	6	12
Allowed cases as percent of resolved	%	%	%	%	%	%
United States	-	73	88	86	85	90
United Kingdom	-	93	82	85	82	93
Other Europe	-	80	95	87	82	84
All other	-	91	81	79	59	82

Table 6 — Industrial sector					First six months	
	1975	1976	1977	1978	1978	1979
Total	6	196	328	331	145	182
Primary	-	12	22	27	13	12
Agriculture, fishing and trapping	-	2	6	2	1	-
Forestry	-	-	2	2	1	1
Mines, quarries, oil wells	-	10	14	23	11	11
Manufacturing	2	67	94	99	48	49
Food, beverage and tobacco	-	3	7	6	5	5
Rubber, plastic and leather	-	4	5	5	3	5
Textiles, knitting and clothing	-	4	9	5	4	3
Wood, furniture and paper	1	5	5	6	3	2
Printing, publishing, and allied	-	-	-	4	1	2
Primary metal and metal fabrication	1	15	19	12	4	10
Machinery and transport equipment	-	6	19	19	12	10
Electrical products	-	7	5	7	2	4
Non metallic mineral products	-	3	5	6	4	-
Petroleum and coal products	-	-	-	-	-	-
Chemical	-	6	3	6	1	5
Miscellaneous	-	14	17	23	9	3
Construction and services	4	117	212	205	84	121
Construction	-	4	4	14	5	8
Transportation, communication, utilities	1	10	5	11	5	5
Trade	1	68	133	102	38	69
Finance, insurance, real estate	1	10	16	11	6	6
Community, business, personal services	1	25	54	67	30	33

* Provisions for review of new businesses came into force October 15, 1975.

International business and investment

Transnational Money Management: Issues and Practices

Massaro, Vincent G.

New York: The Conference Board Inc., 1978

Describes international financing practices of a sample of U.S.-based multinationals. Among the issues examined are the extent to which foreign currency financing decisions are made at headquarters, the relative importance of security, liquidity, yield and other factors in determining investment strategies, the instruments used for investing surplus international funds, and the services required of financial institutions.

Fiscal Transfer Pricing in Multinational Corporations

Mathewson, G.F., and G.D. Quirin

Toronto, Buffalo, London: University of Toronto Press for the Ontario Economic Council, 1979

A study of the scope for transfer price manipulation by multinational enterprises operating in Canada and recommendations for tightening and enforcing Canadian legislation.

American Multinationals and American Interests

Bergsten, C. Fred, Thomas Horst and Theodore H. Moran

Washington, D.C.: Brookings Institution, 1978

Analyzes the effects of American multinationals on the U.S. economy and U.S. foreign policy.

Financing the International Petroleum Industry

White, Norman A. (editor)

London: Graham & Trotman Ltd., 1978

Reference manual on the development and structure of the oil industry, financing of production and distribution (including pipelines and liquefied natural gas systems), taxation, insurance and sources of finance.

Technology and the Multinationals

Baranson, Jack

Lexington (Mass.):

Lexington Books, 1978

Case studies illustrate the changes from protection of technological know-how to sharing it with foreign countries.

Exchange Risk and Corporate International Finance

Aliber, Robert Z.

New York: Wiley Publications, 1978

Describes the international financial environment and its effect on investors, providing a basis for developing corporate strategies.

Multinationals in Contention

Black, Robert, Stephen Blank and Elizabeth C. Hanson

New York: The Conference Board Inc., 1978

General views on approaches to multinational enterprises by host countries and home countries are followed by case studies showing controls and incentives in Canada, France, Nigeria and Brazil.

Canada: Business, investment, government policy

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Frank, James G. (editor)

Ottawa: The Conference Board in Canada, 1979

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Canada-Japan Trade and Investment

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Examines the pattern of Japanese-Canadian trade, including trade between Japan and the several regions of Canada, and the outlook for the principal export and import products. On investment, it traces the recent history of Japanese direct investment overseas and in Canada and looks at the prospects for future investment, particularly in energy and fisheries.

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Ferrari, Leslie Ann and William E.A. Robinson

Ottawa: The Conference Board in Canada, 1979

Biennial up-date of statistical information on fees and retainers for regular board service and service on committees of the board, expense reimbursement and other benefits received.

U.S. Ownership of Firms in Canada

Globerman, Steven

Montreal: C.D. Howe Research Institute, 1979

Part of a series on Canada-U.S. Prospects sponsored by C.D. Howe Research Institute (Canada) and National Planning Association (U.S.A.). One monograph in this volume examines Canadian-U.S. economic linkages through the direct investment process and a second appraises Canada's Foreign Investment Review Act.

Financial Markets and Foreign Ownership

Pattison, J.C.

Toronto: Ontario Economic Council, 1978

Explains the role of financial factors in foreign direct investment in Canada.

Canadian Taxation of Oil and Gas Income

Holland, E.N., G.R. Schulli and R.M. Kemp Don Mills, Ontario: CCH Canadian Limited, 1979

A guide to Canadian taxation of income derived from oil and gas operations; includes chapters on resource profits and resource allowances, capital cost allowances, exploration and development expenses, joint exploration corporations and taxation of non-residents.

The Current Industrial Relations Scene in Canada, 1979

Wood, W.D. and Pradeep Kumar (editors)

Kingston (Ont.): Industrial Relations Centre, Queen's University, 1979

Annual survey of the economy, manpower and labor markets, labor legislation and public policy, trade unionism, collective bargaining, wages, productivity and labor costs.

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News briefs

Ministerial appointments



Herb Gray,
Minister
responsible for the
administration
of the
Foreign Investment
Review Act.

As a result of the general election victory of the Liberal Party on February 18, a new Cabinet has been named, including: the Honourable Herb Gray, Minister of Industry, Trade and Commerce; the Honourable Edward Lumley, Minister of State for Trade; and the Honourable Charles Lapointe, Minister of State for Small Business.

By virtue of his appointment as Minister of Industry, Trade and Commerce, Mr. Gray becomes the Minister responsible for the administration of the Foreign Investment Review Act. The Minister has an intimate knowledge of the Act, having headed the group whose mandate was to analyse the foreign investment situation in Canada in 1970 and recommend appropriate policy measures to the government of the day. The group's 1972 report, Foreign Direct Investment in Canada or as it is commonly known, the Gray Report, led to the enactment of the Foreign Investment Review Act and to the creation of the Foreign Investment Review Agency. Mr. Gray has also held other Cabinet posts, namely National Revenue and Consumer and Corporate Affairs.

The Honourable Edward Lumley is a former chairman of the House of Commons Standing Committee on Regional Development and has served as parliamentary secretary to both the Minister of Regional Economic Development and the Minister of Finance.

The Honourable Charles Lapointe is a former professor at the Université du Québec. First elected to the House of Commons in 1974, Mr. Lapointe was parliamentary secretary to the Minister of Transport in the last Liberal administration.

Increased domestic control of Canadian industry

A recent study carried out by the Foreign Investment Review Agency

shows a sizeable increase in the level of Canadian control of industry in Canada between 1970 and 1977. The study is based on data published under the Corporations and Labour Unions Returns Act (CALURA) which requires non-financial companies in Canada to file an annual return listing key financial data about the ownership of share capital.

For the non-financial sector as a whole, assets under Canadian control grew from 64 percent of the total in 1970 to 70 percent in 1977. An increase was evident in each of the seven broad industry groups, though it was more striking in some than in others. By far the largest change in control occurred in mining, an industry that includes metal mines, mineral fuels (but not the large integrated oil and gas producers) and other non-metallic mineral mines. The remarkable increase in Canadian control, from 32 percent in 1970 to 49 percent in 1977, reflected substantial increases in both the major sub-groups: metal mines, where Canadian control rose from 38

percent to 62 percent; and mineral fuels, where it increased from 18 percent to 40 percent. There was no change in control in the much smaller "other mining" sector.

Manufacturing, the largest of the broad industry groups in terms of assets and the one with the highest proportion of foreign control, showed a modest increase in Canadian control during the period. That increase was evident in varying degrees in 14 of the 21 manufacturing industries, and was particularly marked in primary metals, wood products, chemicals and machinery. There was, however, a decrease in the share of assets under Canadian control in 6 manufacturing industries, most notably in tobacco products, where Canadian control became virtually non-existent as a result of the acquisition by a U.S. company of the last major Canadian-controlled firm in the industry. In only one manufacturing group, clothing industries, was there no change in control.

Canadian control in non-financial industries

	Asset value Million dollars		Percent		Canadian control Increase or (decrease)
	1970	1977	1970	1977	
Mining	15,203	35,886	31	49	18
Manufacturing	47,287	95,414	42	46	4
Primary metals	4,657	8,670	57	86	29
Wood products	1,810	4,126	67	79	12
Chemicals	2,984	7,722	20	32	12
Machinery	2,122	3,742	25	36	11
Leather products	252	448	70	80	10
Transportation equipment	3,762	8,324	15	23	8
Metal fabricating	2,761	5,652	53	60	7
Furniture	442	903	79	84	5
Petroleum, coal products	5,853	13,442	4	8	4
Printing, publishing	1,171	2,480	85	89	4
Paper	7,084	12,016	57	61	4
Knitting mills	249	374	79	82	3
Miscellaneous	1,204	2,642	49	52	3
Beverages	1,373	2,420	68	69	1
Clothing	643	1,308	86	86	0
Rubber products	599	1,438	7	6	(1)
Food	3,806	7,336	64	61	(3)
Electrical products	2,439	4,875	35	31	(4)
Textiles	1,483	2,476	48	42	(6)
Non-metallic mineral products	1,884	3,998	37	30	(7)
Tobacco products	709	1,022	14	0	(14)
Agriculture, forestry, fishing	1,505	4,063	87	92	5
Services	6,154	21,250	78	82	4
Construction	6,564	16,305	84	88	4
Trade	20,694	49,360	75	78	3
Utilities	39,223	81,662	92	93	1

Examining the reasons for the increase in Canadian control, the study identified four major factors:

- Faster growth of Canadian-controlled companies, as a group, in certain industries or sectors. In a few notable cases this was the result of the start-up of a new enterprise or the rapid growth of one that had only entered the industry in 1970. Examples include Sidbec-Normines Inc., with its new iron-mining operations, and Petrosar, a new world-scale petrochemical complex.
- Takeovers of foreign firms in Canada by Canadian-controlled companies. In the mining industry, for example, this category included the purchase of a controlling interest in Texasgulf Inc. and of the assets of Tenneco Inc. by the Canada Development Corporation and the acquisition of the Great Plains Group by Norcen Energy Resources. In the transportation equipment industry, the purchase of MLW-Worthington by Les Entreprises de J. Armand Bombardier Ltée, was an important factor in increased Canadian control, as was the purchase of Zellers Ltd. by Field Stores Ltd. in the retail trade sector.
- "Canadianization" of a number of large firms (without actual takeover). This occurred in some cases as a result of deliberate steps taken by the company or its foreign parent to become Canadian-controlled. Notable examples were Dome Mines Ltd. and Dome Petroleum Ltd., both in the mining industry, Hudson's Bay Company Ltd., a major company in the retail trade sector, and Aluminum Company of Canada Ltd., a large company in primary metals manufacturing. In other cases "Canadianization" followed the accumulation by Canadians of a majority of shares through normal trading activity, the most notable example being Inco Ltd. This large mining company had been classified as foreign-controlled in 1970, but in succeeding years Canadians came to own a majority of its widely-distributed shares, resulting in a re-classification of its assets to Canadian control.
- Re-classification of companies to Canadian from foreign control as a result of more or better information concerning the locus of control. Such revisions influence the share of assets under Canadian control only because they are not carried back to 1970. Two examples that affected the level of

control in their respective industries were the transfer to Canadian control of the large groups of companies controlled by the Irving and Weston families.

Another kind of re-classification affected the level of Canadian control in certain industries without influencing the overall position. This occurred when certain corporations, classified to one industry in 1970, were transferred to another in 1977 because of a change in their principal activity based on value added (which determines industry classification) in the intervening period. Such a transfer, after 1970, of a number of important foreign companies to other industries was one reason for the increased Canadian control in machinery manufacturing.

Ontario encourages world product mandating

Last January, the province of Ontario's Minister of Industry and Tourism, Larry Grossman, announced the establishment of a special task force whose mission was to find the best ways of encouraging multinational enterprises to grant world product mandates to their Ontario subsidiaries.

When a subsidiary is granted a world product mandate (WPM), it acquires total responsibility, within the corporate family, for a given product line, including control over research and development, design, manufacture and marketing from its home base, in this case Ontario. WPMs are important because they almost invariably involve technology-intensive products, create jobs requiring not only factory know-how but also managerial, professional and technical skills, and contribute significantly to the amount of research and development carried out locally.

Mr. Grossman explained Ontario's new strategy by pointing out a key structural problem which has preoccupied Canadians for several decades: the fact that branch plants generally duplicate the parent company's product line without having the economies of scale necessary for making such a wide product variety as vigorous and profitable as possible. The Minister identified another serious element of the branch-plant problem, which is that "...multinationals tend to centralize core skills such as research and development, marketing and management ... while constraining the subsidiary's ability to develop its

own skills." WPMs free the innovative and growth potential of subsidiaries and make it possible for the host community to enjoy the full benefits of foreign investment.

Several multinational enterprises have already adopted the world product mandate approach. One U.S. multinational, Westinghouse, whose Canadian subsidiary was featured in the Autumn 1979 issue of the Foreign Investment Review, has granted a range of world product mandates to its Canadian subsidiary. Westinghouse Canada has evolved from being a struggling branch plant in a shrinking market to a growing concern in international markets. This change required a considerable amount of planning and rationalization with other subsidiaries, but Westinghouse's new corporate strategy has already borne fruit. The Canadian subsidiary now serves the North American and other foreign markets with a range of products which have been designed, developed and manufactured in Canada, and nearly 40 percent of the company's employees in Hamilton and Burlington, Ontario are employed in world mandate activities. Other subsidiaries mentioned by Mr. Grossman, as having adopted a mandating strategy to some degree, include Black and Decker, which produces a line of sanders for most of the world, Honeywell, Garratt Manufacturing, Xerox and Canadian General Electric.

B.C. moratorium on uranium mining

On February 27, British Columbia Premier William Bennett announced a seven-year moratorium on uranium exploration and mining in the province. In announcing his decision, the Premier cited popular opposition to such mining and potential health and environmental threats.

The Premier, whose province holds only about 1.7 percent of Canada's proven uranium reserves, underlined the fact that British Columbia had no need of the uranium at this time, having abundant sources of energy such as hydro dams, natural gas, coal and wood wastes.

Companies now holding rights to uranium deposits, said Mr. Bennett, will have them protected.

Meanwhile, in Saskatchewan and Ontario, which hold the bulk of Canada's uranium reserves, exploration and mining continue.

Focus on Alberta

Canada is blessed with enormous energy resources, including hydrocarbons and other forms of energy such as water power, and Alberta is the richest single source of hydrocarbons among Canada's 10 provinces. Given the long-term demand for hydrocarbons and their fundamental role in the economy, it would be wrong to qualify the fast-paced growth of Alberta's economy as a 'boom' because booms are by their very nature transitory phenomena. Alberta is experiencing a type of growth which could transform its industrial and economic structure.

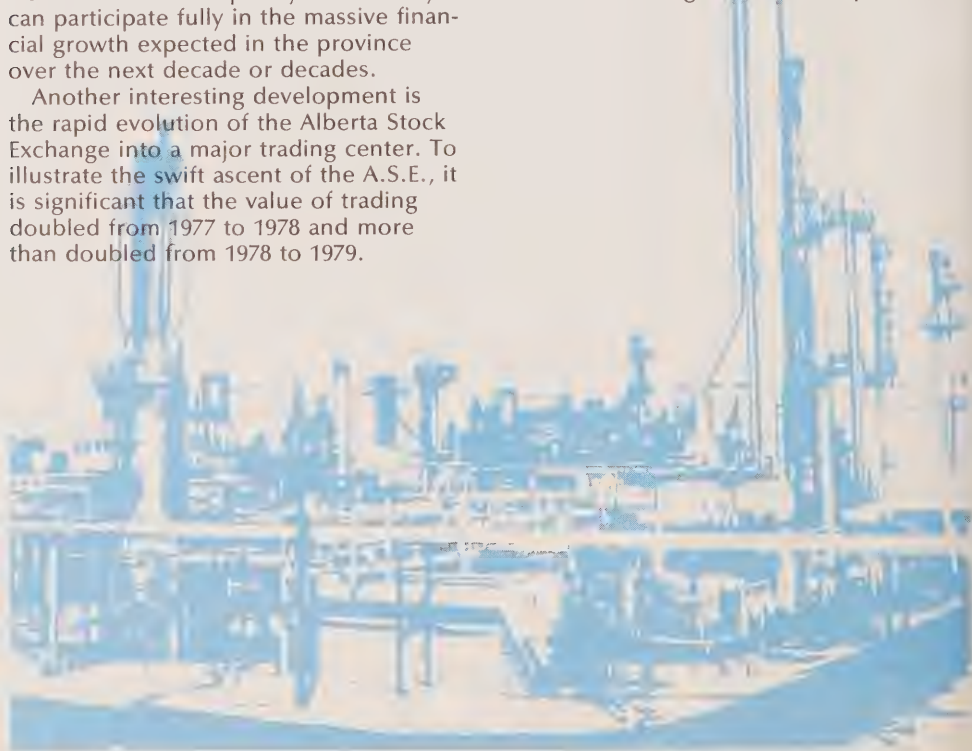
The international preoccupation with energy, particularly oil, has encouraged a similar focus in Canada in relation to Alberta. But more, much more is really happening there. Albertans, fully conscious of the finite nature of their non-renewable resources, have been trying to use those resources as a base on which to diversify their economy and encourage the development of secondary and tertiary industry. The province's economic surge has also had a far-reaching impact on its service sector. Construction firms, real estate firms, in fact, every kind of service industry has taken firm root in the hydrocarbon-rich soil of the province.

Domestic and foreign financial institutions have been taking the steps necessary to meet the vast capital needs of all sectors of Alberta's economy, particularly the resource sector. Huge expenditures on oil and gas development will be made over the next few years. Banks and other financial institutions want to ensure that sizeable on-the-spot decisions can be made quickly so that they can participate fully in the massive financial growth expected in the province over the next decade or decades.

Another interesting development is the rapid evolution of the Alberta Stock Exchange into a major trading center. To illustrate the swift ascent of the A.S.E., it is significant that the value of trading doubled from 1977 to 1978 and more than doubled from 1978 to 1979.

Indeed, what has been called the development of the New West may very well prove to be the development of a new Canada. The rise of the West, particularly Alberta, will have a permanent effect on Canada's economic structure.

This issue of the Foreign Investment Review presents two articles which throw light on the dominant economic trends in Alberta. In the first article, Jeff Carruthers looks at the cornerstone of Alberta and Canada's energy future, the development of non-conventional oil resources. He identifies the major participants, the costs and financing of the mammoth projects and the technological and economic challenges they present. The second article, written by Richard Osler, focuses on the financial side of Alberta's growth, the principal players, their objectives and strategies. He also puts the development of Alberta's financial community into a national and international perspective, tracing the movement of traditionally eastern establishments West and identifying the growing number of foreign firms in the province.



The challenge of Alberta's non-conventional oils

By Jeff Carruthers

More than one foreign visitor has remarked ironically that many countries would love to have Canada's energy problems. They point to Canada's impressive energy mosaic: domestic uranium reserves lasting into the next century with a domestically developed nuclear-reactor system which runs on natural uranium; hydroelectric sites still not fully tapped even with mammoth projects such as Churchill Falls (Newfoundland), Nelson River (Manitoba) and James Bay (Quebec); surplus natural gas reserves measured in trillions of cubic feet; and largely untapped coal reserves. Yet, the most interesting and the most promising piece of the mosaic, for a world which runs on oil, is the strange oil deposits known variously as tar sands, oil sands and heavy oil found in Alberta and, to a lesser extent, Saskatchewan in Western Canada. These geological phenomena have proven oil reserves that rival those of the Middle East itself.

On paper, the numbers overwhelm. The largest of Canada's oil sands deposits, the Athabasca-Wabiskaw-McMurray deposit under the scrub of northeastern Alberta, contains an estimated 720 billion barrels "in place", according to Alberta government figures. When combined with the three other deposits, Cold Lake (159 billion barrels), Peace River (64 billion), and Wabasca (24 billion), the total of 967 billion barrels approaches the magic trillion barrel mark.

This, then, is one of the non-conventional oil sources that many countries such as the United States (oil shales) and Venezuela (Orinoco heavy oil deposits) hope will provide the alternative to dwindling and increasingly undependable conventional oil reserves in the Middle East. Many of Canada's trading partners, including most notably the United States, Japan (Canada's second largest trading partner) and West Germany look fondly to Canada's oil sands as a salvation for their growing energy problems. In fact, some European politicians have complained that Canada is not moving quickly enough to begin developing the oil sands in a major way to allow oil exports to other western nations. The United States, through its Department of Energy, is contributing to oil sands research in Canada through a joint program with the Canadian Department of Energy, Mines and Resources, the Alberta Oil Sands Technology and Research Authority and the Saskatchewan Department of Mineral Resources. Japan is also contributing directly to such research in Canada through joint ventures by Japanese-controlled oil companies with Canada's state-owned oil company, PetroCanada. Canada is already tapping the enor-

mous potential of the oil sands. A first plant, operational since the country's centennial year of 1967, will soon have its production increased from 45,000 to about 60,000 barrels a day. Suncor, Inc., part of the Sun Oil group of companies, recently amalgamated with its oil sands subsidiary, Great Canadian Oil Sands Ltd. (GCOS), which is finally turning a profit after many years of losses. As some experts had feared, the oil sands, which are tar soft in summer and rock hard during winter, have turned out to be much more difficult to transform into useful oil than optimists had believed. Yet, progress, however agonizingly slow and expensive, is being made. No longer are the oil sands useful only for tarring Indian canoes or paving Alberta roads.

A second and larger plant was started by Syncrude Canada Ltd. in the summer of 1979, marking the achievement of the first truly commercial-scale operation. As with its GCOS predecessor, Syncrude is largely a mining operation. First, tons of dirt overburden are scraped aside to expose the oil sands below. The current technological limit is an overburden of 45 metres. Then the oil sands themselves are scooped up in monster draglines (GCOS used huge bucket wheels) and transported by conveyor belts to a centrally located plant, where a water separation technique first developed in the late 1930's is used to extract the bitumen or oil tar. Then, the tar is partially refined to a light, high-quality synthetic crude oil.

Syncrude has faced problems almost since its inception. Originally expected to cost only \$200 million, it eventually cost \$2.1 billion for an output of more than 100,000 barrels a day. It almost did not get built. Escalating costs forced one

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of the four original private oil company partners, Atlantic Richfield Canada Ltd., to withdraw. As a result, the project had to be bailed out by the financial participation of the federal, Alberta and Ontario governments. This crisis underlined one of the biggest problems facing oil sands development: the need for huge amounts of money. The last minute rescue of Syncrude by government as well as the interest shown by both the federal and provincial governments in participating in the projects portends a significant involvement of the public sector in future oil sands developments.

Syncrude has also faced serious technical problems: several expensive fires in the upgrading coker units, which cut production in half during critical oil-short months in 1979; continued breakdowns of equipment due to the highly abrasive nature of the oil sands; and particular problems during the exceedingly cold winters, when the oil sands deposits become rock hard and almost impossible to handle. Experts believe that most of these problems will be solved by the end of the year. But the major problem which promises to haunt oil sands developers beyond 1980 is the unsatisfactory current technology for unlocking even the most accessible deposits, that is the 7 percent of the oil sands which can be surface mined. Only one-third of the 7 percent can actually be transformed into usable synthetic oil.

Both Syncrude and the GCOS currently receive world oil prices (more than double domestic oil prices) for their partially-refined light synthetic oil; this is just one of the financial incentives provided by the federal and provincial governments in the pricing, taxation and royalty area to accelerate development of non-conventional oils in Canada. World prices have increased so rapidly in recent months that the Syncrude project is reportedly close to breaking even with only half of its final production equipment in operation. The same phenomenon should allow Suncor to recover its investment in the expansion of the GCOS plant in less than two years.

The potential profitability of the two existing oil sands plants is such that the federal government may review the policy of automatically paying higher and higher world prices for the synthetic oil from the oil sands. This pricing issue could become a major controversy in determining the timing and pacing of future oil sands projects. At a minimum, the federal government will have to pay a much higher price for synthetic oils, to encourage non-conventional oil development, than is paid for conventional oil from existing sources. If the non-conventional oil price were to be different from the world price, it would probably have to be determined on a cost of production basis, with a guaran-

teed return on investment, something that would encourage investment by reducing risks but also discourage investment by increasing government involvement and reducing the prospects for much higher profits.

Two oil sands plants do not make much of a dent on even the mineable oil sands deposits. In fact, the resulting production of about 180,000 barrels a day fails to cover the drop in conventional oil production in only two years in Canada's regular oil fields.

So far, only two other oil sands plants are on the drawing board: a third mining operation, the Alsands Project Group which is headed by Shell Canada Resources Ltd., in the Athabasca deposits, expected to cost \$6 billion; and the first commercial-scale *in situ* project in the nearby Cold Lake deposits to the south, on the Alberta-Saskatchewan border. The Cold Lake project, proposed by a subsidiary of Exxon's Imperial Oil Ltd., would involve injecting steam into the oil-bearing formations in an attempt to heat the oil enough that it could flow naturally to production wells and be pumped to the surface. It represents the first attempt at the type of technology needed to tap the largest portions of the unmineable oil sands reserves, but it is still not the type of technology needed to tap the deeper deposits in the vast Athabasca reserve.

To illustrate the Athabasca challenge, it would be useful to place those deposits on a scale of oil accessibility. The highest ranking or the most accessible oils are the light crude oils which are extracted by means of traditional wells. Canada has recently phased out exports to the United States of this kind of oil, exports which in the mid-1970's amounted to one million barrels a day or half of Canada's total production. Lower on the accessibility scale are the heavy crude oils which resemble molasses, have low production rates of 10 or 20 barrels a day and, consequently, require a huge number of wells. These conventional production techniques, however, account for only 10 to 25 percent of the oil currently recovered. To produce more oil, non-conventional techniques must be used, requiring special and expensive advanced recovery schemes such as steam injection or even burning oil underground to speed up the flow of oil. The Lloydminster reserves on the southern Alberta-Saskatchewan border are the largest such deposits. These heavy oils are used in Canada largely for producing paving materials. To be useful for making gasolines and other higher grade petroleum products would require the construction either of more sophisticated oil refineries nearer markets or of partial refineries, called upgraders, near the oil fields, at a cost of \$1 billion or more for 50,000 to 100,000 barrels a day. While several Canadian companies have

been studying the feasibility of constructing upgraders, namely Husky Oil Ltd. and PetroCanada, the availability of U.S. export markets, where heavy oils command higher prices, has provided a disincentive for such schemes.

Still lower on the accessibility scale are the even more viscous heavy oils in the Cold Lake and Peace River deposits. These require even more sophisticated advanced recovery schemes, greater investments, and upgrading of the recovered oil. The oil industry, with financial support from the Alberta government, is currently involved in a number of pilot projects to perfect various technologies in advance of commercial plants that could begin producing oil in the mid to late 1980's. The Cold Lake project of Esso Resources Canada Ltd. is the first commercial-scale plant in this category; it is expected to cost more than \$7 billion, in part because of the large number of development wells needed to produce the heavy oil. As with the third mining plant now on the drawing boards, the Cold Lake project is in the final stages of government approval but still requires guarantees on special financial incentives, including pricing, taxes and royalties.

Finally, at the bottom of the accessibility scale are the Athabasca deposits, 90 percent of which cannot be mined from the surface and which might, in time, be accessible using *in situ* techniques not yet perfected.

Thus, Canada is literally only scratching the surface of the oil sands, using technologies developed since the 1930's. Canada expects to rely heavily on the oil sands in the campaign to regain oil self-sufficiency by 1990 or the turn of the century. To achieve this without major new oil finds of conventional oil would require the construction of at least one new oil sands plant every year over the next decade and a half, something that is impossible given the enormous sums of money required (\$5 billion or more per plant), the strain on human and material resources (Canada only has enough manpower to handle one such plant at a time over a two-year construction period, if other major capital projects are not to be delayed), and the length of time between conception and completion of a project (now averaging 10 years).

With oil sands development in fact already lagging behind earlier projects, the likelihood of exports of Canadian non-conventional oil seems extremely slim in the next decade or two even if major technological breakthroughs make possible the exploitation of the deeper Athabasca oil sands. Even then, the same manpower, financial and time constraints faced by current oil sands plants will inhibit the progress of more advanced oil sands plants until the 1990's at the earliest.

Thus, at best, the Canadian oil sands represent only a partial solution in the short term. In the medium term, however, they will be a major contributor to Canadian oil supplies, though at a high cost, and in the long term a potential source of supply for other countries if and when the technology to develop deeper deposits on a large scale are found to be commercially viable.

Alberta has been financing a research program known as the Alberta Oil Sands Technology and Research Authority (AOSTRA), using funds diverted from energy revenues. The major emphasis of the research program, which involved some \$144 million during 1978-79, has been to develop, test and perfect *in situ* techniques, since these would appear to be the key to unlocking the bulk of the oil sands which span some 43,000 square kilometres of eastern and northern Alberta. For example, AOSTRA is providing 50 percent of the \$50 million needed to test the suitability for Athabasca deposits of a patented technique involving a combination of forward combustion (underground burning of some of the oil sands to heat up other deposits) and water flooding (injecting water into the oil sands to drive the heated, less viscous oil to central pumping stations). Amoco Canada Petroleum Co. Ltd., PetroCanada and Sun Oil are involved.

Another Athabasca deposit experiment involves fracturing techniques that will allow deeper deposits of oil sands (below 200 metres of overburden) to be extracted more completely after they have been made less viscous by other techniques. In the Peace River deposit to the west, near the British Columbia border, pilot studies are being funded to test a Shell technique involving an on-again off-again steam injection technique. In the Cold Lake heavy oil deposit to the south of Athabasca, field research is underway on a combination steam injection and combustion displacement technique. BP Exploration, PanCanadian Petroleum Ltd., and Hudson's Bay Oil and Gas Co. Ltd. are involved. The concept of using horizontal shafts or tunnels for gaining access to oil sands and heavy oils for production from vertical shafts is also being evaluated, based in part on visits to Russian underground thermal mining sites.

For the nearer-term, AOSTRA is funding a pilot project on advanced recovery of heavy crude oils in the Lloydminster area of southeastern Alberta. One test will employ steam to drive oil to production wells; a second will involve air injection to aid combustion of part of the oil reservoir. Another test recovery scheme is being underwritten for the Suffield gas reserve in southern Alberta, involving a cyclic combustion process. Before any new facilities can be built to upgrade these types of heavy oils for

more advanced use in Canada, the production rate of such fields will have to be increased significantly. The most obvious way to accomplish this is by perfecting advanced recovery schemes which can be applied to both existing and new heavy oil reservoirs. Such schemes would also increase Canada's producible oil reserves.

Important over the longer term are studies just being started to determine the extent of bitumen deposits in carbonate rocks thought to extend in a huge triangle over much of the same area now known to contain oil sands deposits. Field research tests on an underground combustion recovery method for these deposits are also being funded, involving Union Oil Co. of Canada Ltd. These carbonate deposits are not yet included in any estimates of oil reserves.

AOSTRA is also funding tests of novel oil sands production schemes, including ones which would use electric heating to warm up deposits, and of new oil sands extraction and upgrading processes. For example, oil sands are being sent to West Germany to a Lurgi process pilot unit to test the feasibility and comparative economics of the Lurgi-Ruhrgas direct distillation process (compared to the most advanced traditional hot water separation process). The Lurgi process is more traditionally used to gasify coal. The results of this test will be used to decide whether a demonstration plant should be built in Canada. Another "dry" separation technique, this time involving a patented rotating dry kiln, is also being tested, with possible applications to the upgrading of heavy oils as well.

The federal government's own researchers are pursuing the feasibility of directly hydrocracking oil sands and heavy oils instead of or in conjunction with the more traditional coking techniques. In addition, AOSTRA has financed the testing of Exxon's fluid "flexicoking" technique.

In a more futuristic vein, AOSTRA and a subsidiary of the Japanese company Mitsubishi are undertaking bench unit tests of a direct thermal cracking technique, to see whether it is feasible to produce petrochemical feedstocks directly from oil sands bitumen. Such an approach could lower feedstock costs and provide an opportunity for much higher upgrading of oil sands.

Beyond issues related to technology and economics, a number of other problems are emerging. On the environmental front, the hot water treatment in surface mining plants places strains on available water supplies. Huge quantities of water are required, in part because of the lack of advanced technology for clarifying and recycling treatment water. The huge settling ponds of oily water attract and then

cripple waterfowl along one of North America's major migration routes. Sulphur emissions and potential acid-rain problems are a growing concern. Strip mining and consequent revegetation problems will also be an increasing concern as mining plants multiply.

On the social side, the modest oil sands development envisioned to date — three mining plants and one *in situ* plant — have already threatened to overwhelm social services in sparsely settled parts of Alberta. Thousands of skilled and unskilled workers from other parts of Canada have been attracted to Alberta in search of high-paying jobs, overheating the provincial economy. New towns have to be built at considerable cost to local governments.

Another concern which has been expressed is that the degree of control exercised by a few multinational oil companies, over oil-sand leases and technology, might lead to the pace and nature of oil-sand development being determined by non-Canadian interests at the very time when oil sands account for an increasing share of Canada's domestic oil supply. More consideration is being given, therefore, to ensuring greater Canadian participation in existing and future projects at both the financial and technical levels. The aim is to ensure Canadian capability to develop the oil sands even without foreign participation, if necessary.

A key to the future of the oil sands is federal-provincial relations. In Canada provincial governments have jurisdiction over natural resources and the federal government jurisdiction over interprovincial and international trade. This cross-jurisdictional relationship between the two levels of government has led to confrontation over issues such as pricing and pace of development. Indeed, the pricing question was still not resolved at the time this issue went to press. Alberta, conscious of the finite nature of its petroleum resources and the growing disparity between domestic and international prices, is intent upon getting maximum value for its oil, whereas the federal government is preoccupied with the effect that large price increases would have on the economy. The pace of development is another bone of contention, Alberta wanting to avoid overheating the provincial economy and overtaxing its public services, and the federal government wanting to accelerate development to reduce Canada's dependence on imports of expensive foreign oil. As long as even the possibility of confrontation exists, private investors will be that much more cautious about committing the huge sums required for the development of commercial oil sands projects. That is why federal-provincial relations have been and will continue to be a pivotal element in the development of the tar sands.

A new financial community in the West

by Richard Osler

The old truism "It takes money to make money" is being proven again in Alberta, whose burgeoning economy, particularly its resource sector, requires an increasingly large and sophisticated financial community to meet current and future needs for financing.

Though revenues from oil and gas are enormous in their own right and are generating staggering wealth in other industries, resource exploration and development projects such as heavy oil and oilsands, the vast sums needed for infrastructure and the development of industries allied to and independent from resources all require large-scale and on-the-spot financing services. This is why an important financial community is taking shape in Alberta. Both domestic and foreign financial organizations are quickly establishing offices in Calgary and Edmonton in order to take advantage of the current market for their services and, more importantly, the anticipated huge future market.

The Canadian financial contingent

There was a time when Canadian chartered banks, which operate nationwide, did their major business in Alberta at head offices in Toronto and Montreal. Needless to say, those days are now a closed chapter of Canadian financial history. The Bank of Montreal announced last year its intention to build a two-tower corporate edifice in Calgary, one tower of which will reach 47 storeys and the other 64 storeys, the tallest building in the Commonwealth. The bank has also relocated its chairman and its vice-president (corporate banking) to Calgary. The Royal Bank of Canada, the country's largest and most important chartered bank, has also relocated its vice-chairman to Calgary. Furthermore, it has formed a new department, the Global Energy Group, whose headquarters will be in that city.

The president of the Alberta Stock Exchange, who has witnessed these and other eastern establishment moves to the West, made a most cogent observation when he said that Alberta's financial community "... will probably never be in the same league as Toronto, but (is) gaining a large measure of decision-making power..." That is the key: decision-making power. Representatives of the banks in Alberta must be in a position to approve significant loans without the inevitable delays associated with head office review and approval. The

competition which already exists and which is expected to intensify further makes loan turn-around time a determining element in the success of a financial institution. The Royal Bank, the Bank of Montreal and the Canadian Imperial Bank of Commerce have opened specialized corporate banking units to which they have given discretionary lending limits of up to \$20 million and \$25 million, subject to board approval. This has meant the possibility of approval in days instead of weeks. Strangely, top Alberta executives of both the Royal Bank and the Bank of Montreal have discretionary lending limits that are lower than those of their corporate banking executives. Nevertheless, the limits are in the \$5 million range, which is twice as high as those of their competitors and five times greater than the most common level of only three or four years ago. By far the most important bank in the oil business is the Royal Bank, which is reputed to hold about a third of all oil and gas loans. One of the five big chartered banks is expected to open a money market desk soon, which is another key financial center ingredient. The Royal Bank, the Bank of Montreal and the Toronto-Dominion Bank have already opened foreign exchange desks.

Other smaller Canadian banks are establishing themselves in Alberta. For example, the Northland Bank, which is one of Canada's newest chartered banks, has executive offices in Calgary. It has grown quickly by using the wholesale commercial lending approach as well as making significant commitments to international loan syndications. Among its shareholders are the giant Deutsche Genossenschaftsbank of Frankfurt (5 percent) and Girard International Bank of Philadelphia (5 percent). Another bank is the Canadian Commercial and Industrial Bank based in Edmonton which, also as a wholesale commercial lender, has seen its assets grow to more than \$500 million in slightly over three years.

The banks, however, are just one source of financing. Oil companies, particularly fledgling ones, have found a new financing source, tax-shelter drilling funds, which provide financing normally only available through equity financing.



An artist's concept of the Bank of Montreal's projected two-tower office complex in Calgary.

This highly leveraged money source has helped to launch many companies, including the highly successful Czar Resources Ltd., which went from nothing to a market capitalization of \$100 million in a relatively short period. This form of financing has been very popular with investors because of the attractive tax write-offs (100 percent for exploratory drilling and 30 percent for development drilling) which usually average between 60 and 70 percent in the first year for Canadian funds. About \$1.5 billion have been invested in the oil and gas industry in this way since West Germans first started investing in the funds in 1974. West Germans have bought about \$700 million worth of these tax-induced offerings because of tax laws which allowed as much as 200 percent write-offs for such investments. Recent reductions in those tax benefits in West Germany, however, appear to have reduced the annual inflow of investment in those funds from that source. Since 1976, when tax changes encouraged Canadian drilling funds, Canadians have spent about \$800 million, including an unprecedented \$500 million in 1979.

One result of the popularity of these drilling funds has been to provide a new line of business for brokerage firms who market the public funds. Indeed, this business has drawn many firms to Calgary. Several national brokerage houses find that about one third of their new underwritings, including drilling funds, originate from Alberta. This explains why most of those firms have sent one if not more corporate underwriters to Calgary. Large national firms, such as MacLeod Young Weir and Wood Gundy Ltd., as well as smaller firms, such as Walwyn Stodgell Cochran Murray Ltd. and Midland Doherty Ltd., have been very busy underwriting in Calgary.

In addition to the national brokerage houses which opened shop in Calgary, a number of local firms have seen the light of day. Most notable among the Calgary firms is Peters & Co. which had a modest beginning in 1971 and has become a major underwriter for solid junior companies. With its close industry connections Peters was one step ahead of the bigger firms which were not ready for the equity boom which started in the last half of 1978.

Retail brokerage business has also thrived, as is shown by the fact that most houses have, at a minimum, doubled their retail staff since 1978. Ideally placed for taking advantage of the oil and gas business, salesmen in Calgary have been doing an unprecedented volume of business. For example, Merrill Lynch, Royal Securities Ltd.'s Calgary office is its busiest in Canada.

The evolution of the Alberta Stock Exchange has paralleled the growth of the resource sector, particularly oil and

gas. Established in 1914 as the Calgary Stock Exchange, the A.S.E. is rapidly gaining prestige and recognition as a major trading centre in Canada. This year alone trading dollar value jumped more than 150 percent. The A.S.E. is consolidating its position as a specialized marketplace, launching junior resource companies. It expects to broaden its trading base and to benefit in the future from more trading of interlisted stock. The heart of the A.S.E.'s business, however, is and will continue to be the floating and trading of petroleum industry issues.

Insurance companies are also participating in Alberta's rising fortunes. One of the most interesting firms is the Cascade Group, which in 1979 became the second largest group of insurance companies in the West. A sign of the times was Cascade's decision to move the head offices of two of the firms it had acquired, namely Sovereign General Assurance Co. (assets \$30 million) and Sovereign Life Assurance Co. (assets \$93 million) to Calgary from Toronto. Including Cannon Assurance Co. of Britain, which it acquired in 1978, Cascade controls more than \$570 million worth of insurance assets. The Calgary firm hopes to increase this asset figure to over \$1 billion by the early 1980s.

Not to be forgotten as an important

element of Alberta's financial picture is the provincial government's huge savings fund which was created to manage the income generated by oil and gas royalties. The Alberta Heritage Savings Trust Fund, worth \$5 billion and expected to grow to \$30 billion over the next 10 years, is and will be an important instrument in Alberta's strategy to diversify its industry and economy.

The foreign financial contingent

Calgary has always been an important suitcase banking stop for foreign banks and it is quickly becoming a permanent location for many of them as they seek to get a share of the huge volume of business anticipated for the 1980's. An interesting perspective on what foreign banks are trying to accomplish in Calgary is given by Terry Baker, honorary British consul for Calgary and local manager for Natwest Canada Ltd., a subsidiary of National Westminster Bank Ltd. of London which established itself in Calgary last year. He maintains that, though foreign banks are transacting some offshore business and medium-sized corporate loans, their main efforts are being devoted to establishing contacts for the large businesses yet to come. The key target of the foreign banks is

the syndicated loan business, which will be an integral part of the huge oil and gas projects of the 1980's. Syndicated loans, where a number of banks jointly finance huge loans, have been rare in Canada because the chartered banks have been able to make most loans on their own. Mr. Baker stresses the point, however, that in an era of billion-dollar projects "... syndicated loans become a necessity." He maintains that the chartered banks must broaden their base and that "... they can't expect to handle all the oil and gas mega-project debt of the 1980's. Canada is going to need to tap international sources of funds."

Another representative of a foreign bank already finds business good in Calgary. Udo Studner, manager for SBC Financial Ltd. a subsidiary of Swiss Banking Corporation, says that he booked more loans than expected in 1979 and thinks that it will be easy to double his volume of business this year. SBC landed a \$30 million loan with a large foreign-controlled company in Calgary. Studner says that foreign banks have an advantage over domestic banks in that their rates are based on the London interbank rate, whereas the domestic banks base theirs on the higher Canadian prime rate. He says that the difference can amount to as much as one percentage point.

Readers will note that both firms referred to above are subsidiaries. In fact, most foreign banks in Canada have established subsidiaries instead of representative offices because they anticipate changes in Canada's Bank Act which would allow them to take deposits and compete fully with Canadian banks.

If statements made by a British business mission last year can be interpreted as being representative of foreign interest in Alberta, future foreign participation in Alberta's financial community seems destined to grow. Representing major clearing banks, merchant banks and brokerage houses, 12 British businessmen visited Alberta for a week last June and concluded that more British institutions should be established in the province. William Clarke, Director General of the London Committee for Invisible Exports, speculated that Alberta was becoming Canada's second most important banking center after Toronto.

Oil and gas are fueling the rapid evolution of Western Canada, particularly Alberta. This has created the need for an important Alberta-based financial community capable of providing the services required for the immense transactions associated not only with oil and gas but also other industries. The movement of important financial organizations to Alberta from Eastern Canada and abroad is clear evidence that what Alberta is experiencing is not just a boom, but a permanent transformation of its economy.

Foreign banks represented or soon to be represented in Alberta

The Chase Manhattan Bank	U.S.A.
Citicorp	U.S.A.
Crédit Suisse	Switzerland
National Westminster Bank Ltd.	U.K.
Swiss Bank Corporation	Switzerland
Société Générale de Banque S.A.	France
Seafirst Corporation	U.S.A.
The Hong Kong & Shanghai Banking Corporation (Wardley)	Hong Kong
Bankers Trust New York Corp.	U.S.A.
Schroders Ltd.	U.K.
The First Boston Corporation	U.S.A.
Crédit Lyonnais S.A.	France
Continental Illinois Bank & Trust Co.	U.S.A.
Chemical New York Corp.	U.S.A.
The Bank of Tokyo	Japan
Barclays Bank Ltd.	U.K.

U.S. investment in Canada

by Joan Gherson

To many Canadians, foreign investment is synonymous with American investment and indeed there is good reason for that impression. U.S.-controlled firms are the major foreign presence in Canada, controlling nearly half of all capital employed in the manufacturing and natural resource sectors. Although the American presence has been paramount for only the latter half of this country's 112-year history and in recent years has shown some slight sign of diminution, its importance and influence have made it the subject of intense study both in Canada and in the United States. This article outlines the history, size and concentration of that investment.

Though the United States has always had a profound influence on cultural and commercial life in Canada, it has not always played a major role as a source of investment funds in this country. In fact, up to the middle of the nineteenth century the role of foreign creditor was almost entirely borne by Great Britain in Canada just as in the United States itself. It has been estimated that at least 90 percent of the \$200 million of total foreign investment in Canada in 1867 originated in Britain. Most of that investment was portfolio investment, largely government and railway bonds. Direct investment amounted only to about 20 percent of the total, Britain being also the foremost direct investor.

Britain's dominant position changed only slightly during the period leading up to the first world war in spite of the substantial increase in foreign borrowing, particularly between 1900 and 1913 when approximately \$2.5 billion worth of foreign capital entered Canada. While securities, chiefly of government origin, continued to be the major financial vehicle, with Britain still the leading source of funds, U.S. investment stock was growing twice as fast as British investment. By 1914 the British share of total foreign capital in Canada had declined to about 72 percent, whereas the U.S. share had increased to about 23 percent. It was during this period that the United States supplanted Britain as the leading source of direct investment, most of the U.S. capital going into forestry and mining, and some into manufacturing.

While the more rapid growth of American investment was already evident before 1914, it was overshadowed by the dominant size of British investment. This situation changed, however, during and after the war. The British began to liquidate outstanding government and railway debt and Canadian governments and corporations began to turn to New

York instead of London for funds. From 1914 to 1926 U.S. portfolio investment in Canada increased from approximately \$250 million to \$1.8 billion; it was the major factor in the rapid increase of total U.S. investment during that period. This, coupled with the more than doubling of U.S. direct investment, made the United States Canada's principal creditor by 1926; the first year for which official Canadian data on foreign investment are available. The United States maintained this position in spite of a slight increase in British investment in the late 1920's and a modest decline in U.S. investment in the 1930's. With the further erosion of British investment during the second world war, much of it replaced by U.S. sources, the positions of the United States and Britain as Canada's creditors were, by 1946, exactly the reverse of what they had been in 1914; that is, some 72 percent of the \$7 billion of foreign capital was owned in the United States and about 23 percent in Britain.

The 1950's and 1960's were decades of massive influxes of foreign investment in Canada, foreign long-term investment increasing by over \$30 billion. In 1967, Canada's centenary, the U.S. share of foreign capital in this country peaked at 80 percent. The 1970's, however, were an even more dramatic period of increasing foreign investment, averaging \$6 billion per year between 1970 and 1976. So great was the increase that, although the U.S. share decreased to below 75 percent by 1976, its value had more than doubled since 1966.

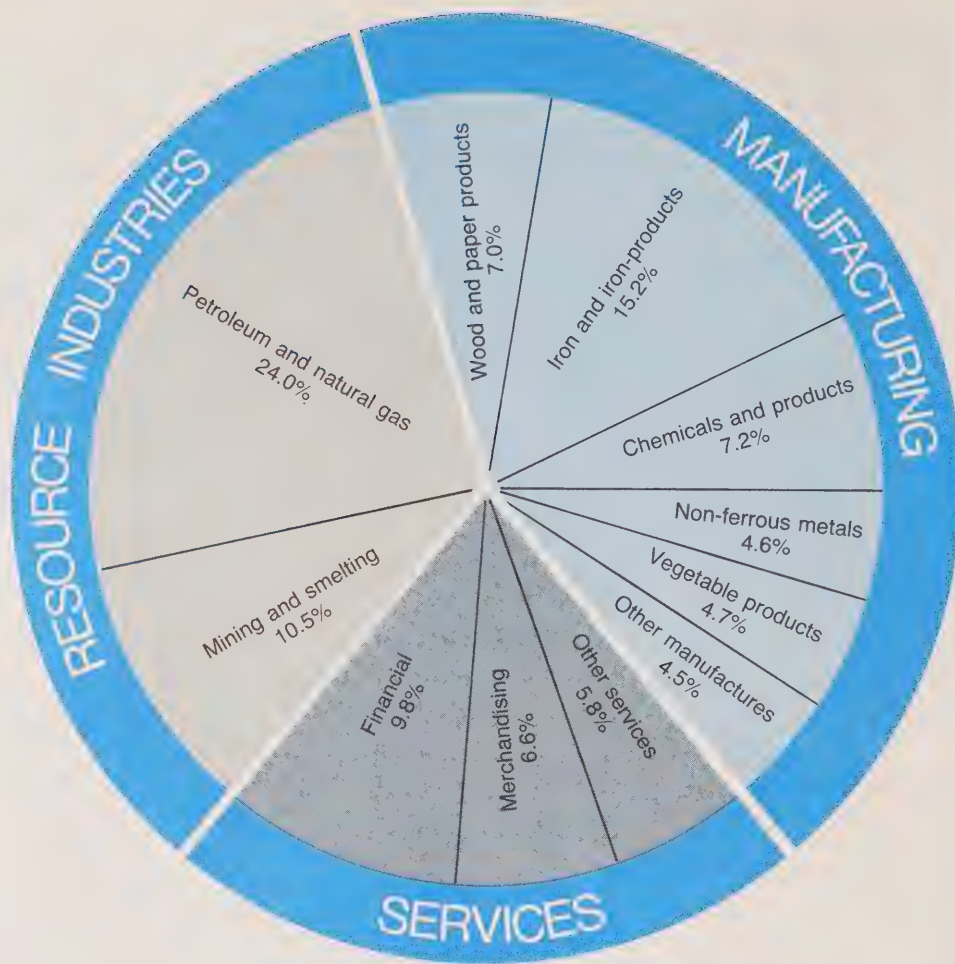
Characteristics of U.S. investment

The principal characteristic of U.S. investment is its sheer size. With a book value in 1977 of over \$65 billion, it represents nearly 75 percent of all foreign

investment in this country. Moreover, Canada is also the chief locus of U.S. external investment, accounting for 25 percent. In fact, Canada's share of U.S. external funds during this century has stayed consistently in the 25 percent range, even in the early years when Britain was the major source of funds. The present size of U.S. investment in Canada is due, therefore, not to any increase in concentration in Canada, though that was a factor in the 1950's and 1960's, but to the remarkable growth of U.S. investment world-wide and Canada's consistent share of that investment.

A second and long-standing characteristic of U.S. investment is the high proportion represented by direct investment, involving ownership or control of Canadian industry. Between 1900 and 1913, for example, about 55 percent of U.S. investment was direct investment, compared with only 11 percent of British investment. After 1914 the proportion fell below 50 percent but resumed its predominance after 1945. Between 1946 and 1974 the book value of U.S. investment increased by nearly \$44 billion of which nearly \$27 billion or 62 percent was due to increased direct investment. Although portfolio investment was again relatively stronger in 1975 and 1976, the proportion of direct investment in the total stock was still 58 percent at the end of 1976. By comparison, only 40 percent of other foreign investment was direct investment. One consequence of the size and age of U.S. direct investment is its ability to grow from earnings generated in Canada. In recent years retained earnings of subsidiaries have been the principal source of additions to foreign direct investment in this country. Thus, the early establishment of American companies enabled them to consolidate their position and in some cases to inhibit the entry of others because the size of the market would not support new producers.

Historically, the two principal motives for U.S. direct investment have been to secure supplies of raw materials for its industries and their subsidiaries, and to extend the market for U.S. products. The first can be attributed to the close proximity and the complementarity of Canadian resources. It has led to large-scale investment in Canada's natural resources and, consequently, to an orientation of Canada's exports towards raw materials and towards the United States. Canada's forest industries were the first to attract large investments. Beginning with purchases of large timber tracts in the last century, that investment moved into sawmills, pulp mills and newsprint as export restrictions, tariffs or relative costs of production made these desirable or imperative. Securing a captive source of raw materials has increasingly been an important element in mineral developments such as iron ore,



Percentage distribution of U.S. investment in Canada - 1976

asbestos and petroleum. In other cases, however, where the gain to be had from the development of rich deposits was the only force motivating Americans to become principal investors, the existence of a large market to the south has always been an important underlying factor.

The second motive for direct investment, to extend the market for the products of American industry, is responsible for the vast number of American branch plants in Canada. Strong evidence suggests that the Canadian tariff, and later the Commonwealth Preferential Tariff, stimulated that development. But as the relative importance of the tariff declined, other factors, such as the considerable growth of the Canadian market, special market characteristics requiring modification of the American product and service needs, contributed to the continued growth and expansion of the American branch-plant presence.

The predominance of the two motives identified above has been so strong that, by 1975, resource development and secondary manufacturing together accounted for 78.5 percent of the book value of all U.S. direct investment in Canada. As much as 43 percent of that investment was in the manufacturing industries, 24 percent in petroleum and natural gas, and 11 percent in mining.

U.S. control in Canadian industry

One of the results of the high concentration of investment in resources and manufacturing has been the commensurate degree of U.S. control in those sectors of Canadian industry. Some 43 percent of the book value of capital employed in manufacturing, 58

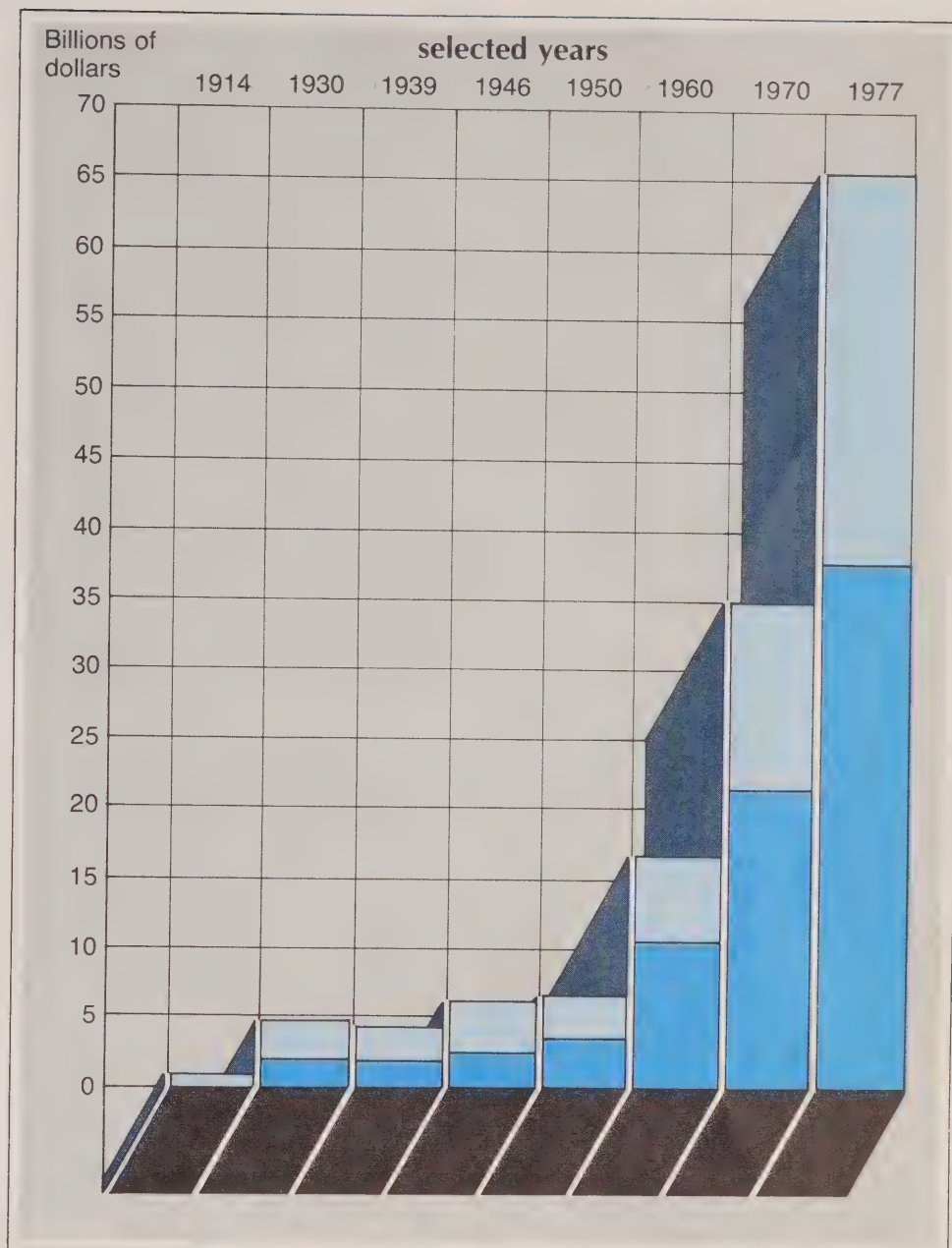
percent in petroleum and natural gas, and 45 percent in mining is controlled in the United States. Within these sectors, American-controlled firms account for 80 percent of shipments in iron-mining, rubber manufacturing, transportation equipment and electrical industrial equipment. Yet, despite the size of that American share it is now a smaller proportion in all three major sectors (manufacturing, mining and oil and gas) than it was at the end of the 1960's, largely as a result of a growing Canadian share but also because of a faster rate of growth in other countries' investment.

American-controlled companies tend to be among the largest in a great many industries in Canada and are, therefore, not only particularly notable but also especially profitable and influential. One measure of their importance is that, in 1977, they generated nearly 60 percent of corporation profits in manufacturing and mining. Another is that more than one third of the 100 largest Canadian industrial companies are more than 50 percent American-owned. They include the two very largest companies in Canada, General Motors of Canada Ltd. and Ford Motor Co. of Canada Ltd., each with revenues in the \$7-billion range in 1978. Chrysler Canada Ltd. is also among the top 10, as are Imperial Oil Ltd. and Gulf Canada Ltd.

Many of these large industrial companies have links with Canada that go back to the earliest period of American investment. Imperial Oil Ltd., for example, has been in Canada since about 1880 and, as early as the turn of the century, it dominated the eastern Canadian market. Growing rapidly from its early strong base as a distributor and also as a producer (first in Ontario and subsequently in Alberta) the company and its subsidiaries now own and operate a large distribution network, six refineries and major gas processing plants, manufacture petrochemicals and other products, engage in oil, gas and other mineral exploration and development, and have major interests in pipelines.

Among the hundred or so other companies that were here before 1900 are the two leaders in the electrical apparatus industry, Canadian General Electric Co. Ltd. and Canadian Westinghouse Co. Ltd., as well as the Canadian branches of Sherwin-Williams Company, for long the largest American-owned paint company, The Singer Sewing Machine Company, Ingersoll Rand and the International Paper Company. Only slightly later, in the early years of this century, came the two largest automotive companies, Ford and General Motors, though neither were in the first instance organized by the parent company. Ford, the earliest, was started by a Canadian, with 51 percent of the initial capitalization given to the American

Book value of U.S. investment in Canada



Portfolio and other Direct

company in return for rights and processes. The predecessor of General Motors was also started by a Canadian, who maintained control until the first world war. Also established before 1914 were the Ontario Paper Company, owned by the Chicago Tribune, the first explosive plants of the duPont Company, the Otis Elevator Company, the Goodyear Tire and Rubber Company and the two large agricultural implement manufacturers, International Harvester and John Deere.

Indeed, the early decades of this century were years of prolific branch-plant development. By the mid-1930's, the list of American companies had grown to well over a thousand. Only slightly set back by the depression, the growth has continued until over 4,000 corporations are now classified as being American-controlled. Still more spectacular than the increase in numbers has been the growth in assets through expansion and acquisition.

Regional distribution

Although there are American companies in all regions, the investment is concentrated in Ontario, Quebec and Alberta where 81 percent of the taxable income of U.S.-controlled non-financial corporations was generated in 1976. A breakdown by source of income shows that U.S.-controlled mineral (including oil and gas) investment is mainly in Alberta, while manufacturing investment is predominantly in Ontario and, to a considerably lesser extent, in Quebec.

That this regional concentration of investment is vitally significant for provincial economies is evident from the fact that U.S.-controlled companies earned 58.5 percent of all corporate taxable income in Alberta and 45 percent of the total in Ontario. This is also true for other provinces, where American investment is considerably smaller, because its concentration in either mining or manufacturing can make it particularly important to the economy.

Outlook

The magnitude and evident profitability of U.S. investment in Canada shows that this country has been a good place for American capital. But the very size of that investment and changes in the world investment picture such as tariff reductions, which diminish the advantage of branch plants, put the future rate of growth in question. The huge post-war influx of American capital has subsided in recent years and a plateau may have been reached in the establishment of new American manufacturing plants. Though the U.S. presence continues to grow in Canada, that growth is increasingly financed from Canadian sources, principally the retained earnings of subsidiaries, and its rate has declined. The U.S.-controlled share of the total capital employed in manufacturing, mining and oil and gas has also been declining. This is partly due to repatriation of a number of American-controlled investments, notably in resource industries, but also in manufacturing. Another factor is the more rapid growth in investment from other countries, including the acquisition of American parent companies by non-Americans and the resulting change in ownership of Canadian subsidiaries. Yet, it would be unwise to conclude that present trends will continue. More than 40 years ago an important study of Canadian-American industry concluded, in similar circumstances, that because American industry had nearly reached "saturation", its rate of increase must in future be much slower. Instead, in the ensuing years, a new surge of development brought new investment to unprecedented levels.

U.S. Control of largest Canadian companies

Group (Ranked by 1978-79 sales)	U.S. share of ownership			
	100%	80-99%	50-79%	over 50%
— number —				
Industrials				
1 - 50	6	6	0	12
51 - 100	15	5	3	23
101 - 150	20	2	1	23
151 - 200	22	1	4	27
Total, 200 largest	63	14	8	85
Merchandisers				
25 largest	8	0	1	9
Petroleum producers^a				
20 largest	3	4	2	9
Mining producers^a				
20 largest	0	0	2	2

^aProducers of raw materials only; companies with integrated refineries are included in industrials

Source: The Financial Post

U.S. applications to the Foreign Investment Review Agency

Since the inception of the Foreign Investment Review Act Americans have been responsible for 61 percent of all reviewable applications. In terms of the value of assets acquired or new investment proposed, the U.S. share is smaller, though the difference is slight. This U.S. share, whether in terms of number of applications or the value of investment involved, is substantially less than the U.S. share of the value of all foreign direct investment in Canada, which exceeds 80 percent. That difference undoubtedly reflects the fact that a large part of the increase in the book value of U.S. investment is due to the growth and expansion of existing U.S.-owned businesses.

	Acquisitions ^a	New businesses ^b
	— number —	
Reviewable applications	950	675
Allowed	732	548
Disallowed	78	42
Withdrawn	64	53
	874	643
Reviewable applications by sector	— percent —	
Primary	7.8	5.5
Manufacturing	49.0	25.9
Services	43.2	68.6
	100.0	100.0
Reviewable applications by region		
Atlantic provinces	2.5	1.9
Quebec	15.7	10.1
Ontario	57.0	64.3
Western provinces & Territories	24.8	23.7
	100.0	100.0

^aApril 1, 1974 to December 31, 1979 ^bOctober 15, 1975 to December 31, 1979

O & K Orenstein & Koppel: a case study

by Alan Darisse

Though German investment in Canada is nothing new, significant investments in resources having been made in the 1950's and 1960's, its orientation and amplitude are. German investment in this country is being increasingly directed to manufacturing and services, a trend confirmed by statements made by members of a high level German business mission last September. The mission members also identified several reasons for choosing Canada as an operating base for North America, including proximity to the huge U.S. market, an abundance of relatively cheap energy, reasonable labour costs and political stability. O & K is a good example of the new trend in German investment.

O & K was founded in Berlin in 1876 to manufacture transport systems and narrow gauge railways primarily for the sugar, agricultural and forestry industries. The business thrived. By the end of that decade, O & K was producing locomotives in its Berlin-Schlachtensee factory and, by the end of the century, constructing new factories in Berlin-Tempelhof, Berlin-Spandau, Berlin-Babelsberg, Dortmund and Bochum in order to meet increasing demand for its products.

The turn of the century saw O & K's product variety continue to grow. The 1911 acquisition of Lubecker Maschinenbau Gesellschaft added large earthmoving equipment, such as bucketwheel excavators and dredgers, to its manufacturing list. Production had expanded to such a point that by 1926, O & K's 50th anniversary, employment reached 12,000 in its various factories and branches.

The 1930's proved to be another great period of growth for the company. Two acquisitions, that of Dessauer Waggonfabrik AG and Bothaer Waggonfabrik AG, highlighted 1930. They enabled O & K to rationalize and greatly increase its production of rolling stock. During that decade O & K built up a world-wide network of subsidiaries, sales offices and service stations in order to expand sales and provide local servicing of O & K equipment in centers such as Amsterdam, Paris, Milan, Madrid, London, Zurich, Johannesburg and Buenos Aires. By 1939 O & K could count on 125 sales branches around the world.

But just as the company was reaching greater and greater peaks of activity and success, the second world war broke out. The war was a devastating blow to O & K. Entire factories and valuable equipment were destroyed and a number of factory installations were lost due to the circumstances of the war. Though O & K's operations had been almost completely wiped out, the company managed to become operational again in 1948. The 1950's were a period

of expansion and increased research. By 1961, O & K had developed and was producing fully hydraulic excavators, which were a technological first in this kind of equipment. By 1968 the Berlin-Spandau works had produced 10,000 excavators and only five years later, this figure doubled. The fact that exports played an important role in the company's comeback was no accident. Throughout the post-war period, O & K concentrated heavily on foreign markets to the point where, by 1972, exports represented 31 percent of its revenue. Licensing agreements with firms in Japan and the United States were also part of O & K's drive to increase sales in foreign markets.

New factors in the 1970's, however, made it difficult for O & K to continue relying on exports as a prime way of increasing its share of foreign markets. Most important was the rise of the deutschmark's exchange value, which made German exports, including O & K's, more expensive and thus less competitive. O & K, which wanted to increase its share of a growing North American market for the kind of product it produced, began to search for opportunities to establish a manufacturing arm in North America. In 1974 it found that opportunity in the intended disposal by Clark Equipment Ltd. of its struggling Industrial Machinery Division in Dundas, Ontario.

The Dundas facilities

Established in 1861 as the family firm of John Bertram and Sons, the Dundas firm developed a national reputation for the quality of its heavy machinery and industrial equipment, predominantly machinery tools. It was a stable enterprise for over 80 years, but, as is often the case with family firms, it eventually became necessary to consider an ownership change. This happened in 1951 when Russel Industries acquired the firm. Though the activities of the Dundas

firm were relatively stable through the 1950's, it was soon to experience an increasingly rapid succession of different owners. In 1963, Russel Industries sold it to Levy Industries and, only three years later, Levy Industries formed a new company with Baldwin-Lima-Hamilton. John Bertram and Sons Ltd. thus became BLH-Bertram. In 1969 another change of ownership occurred when Baldwin-Lima-Hamilton bought out Levy Industries. BLH-Bertram became BLH Canada Ltd., a wholly owned U.S. subsidiary with Armour and Company Ltd. of Chicago as the ultimate controller. This continual change of ownership would, in any circumstances, be enough to send any firm into a spin, but BLH Canada Ltd. was not yet at the end of what had been a kind of revolving-door ownership. Only two years after the 1969 development, BLH's ownership again changed hands. The new owner was Clark Equipment Company Ltd., a large U.S. manufacturer of heavy construction machinery. Clark Equipment soon concluded that the Dundas plant was not everything it had hoped for. In fact, by 1974, it too sought to sell the Dundas plant, concluding that what had become its Industrial Machinery Division was incompatible with its overall operations. It was at this point that O & K Orenstein and Koppel made its move.

O & K's acquisition

The Foreign Investment Review Act having been enacted in 1974, the O & K-Clark transaction was subject to review. The following is a summary of its investment proposal.

O & K planned to carry out the acquisition by establishing a Canadian subsidiary under the legal name of O & K Orenstein & Koppel of Canada Ltd., which was to purchase from Clark Equipment of Canada its fixed assets as well as the raw materials, work in progress and existing orders. The subsidiary was to be provided with capital stock of \$1,250,000 with provision for increases in capital stock and shareholders loans for the purpose of acquiring machinery and equipment. O & K Canada's activities were to be concentrated on two fronts, the first being a continuation of Clark's industrial sales operations, and the second being the standard production of three models of hydraulic excavators. The Dundas facilities had been operating at only 30 percent capacity and most of this activity was accounted for by manufacturing agreements which were to be continued and possibly increased. O & K planned to increase the mining equipment side of operations through partial manufacture of bucketwheel excavator reclaimers for the huge Syncrude oil-sands project in Alberta.

Before production could be increased, however, O & K estimated that major

capital expenditures would have to be made on additional buildings, new machinery and revision of lay-out and alterations to existing facilities. A dealer network was to be set up in Canada and the United States, and the company estimated that two-thirds of its excavators would be sold in Canada and the rest in export markets, principally the United States. From a Canadian point of view, a key element of O & K's plans was its unqualified intention to make O & K Canada fully responsible for production, marketing, pricing, purchasing and financial matters. It should be noted that the Government of Ontario was eager to help O & K because it perceived the acquisition as being beneficial to the Dundas firm and, indeed, to the community in a wide range of ways from employment to new technology. In fact, Ontario offered to lend O & K \$1 million in support of its acquisition of the Dundas facilities.

O & K submitted a set of undertakings with its investment application. First, it undertook to improve the Dundas facilities by renovating existing buildings, constructing two new building additions and spending \$1.5 million on new equipment. Another undertaking was to maintain current business activities and initiate the manufacture of O & K construction machines. The firm was to follow planned production development which in 5 years would increase sales from \$7 million to \$30 million and employment from 200 to 600. It also undertook to retain current management and consider Canadian financial participation of between 25 and 49 percent. Finally, it undertook to retain the employees currently working at the Dundas plant.

Those were the initial undertakings which FIRA reviewed together with the investment plan. After negotiation, an expanded set of undertakings was agreed upon which included a number of new and interesting commitments. One was that O & K was to move from Germany to Canada the partial manufacture of certain large equipment items, such as the bucketwheel excavator for Syncrude. Another concerned sourcing in Canada, particularly the purchase of new equipment and new materials and parts used in production in Canada, if competitive and available. The employee related undertaking was expanded to ensure that there would be no loss of seniority or other benefits. It was agreed that no restrictions were to be placed on O & K Canada's freedom to export. Furthermore, O & K agreed to provide its subsidiary basic research services at no charge and to make the Canadian subsidiary responsible for the design, testing and production aspects of modifying the parent's products for the North American market. Finally O & K undertook to transfer technology and

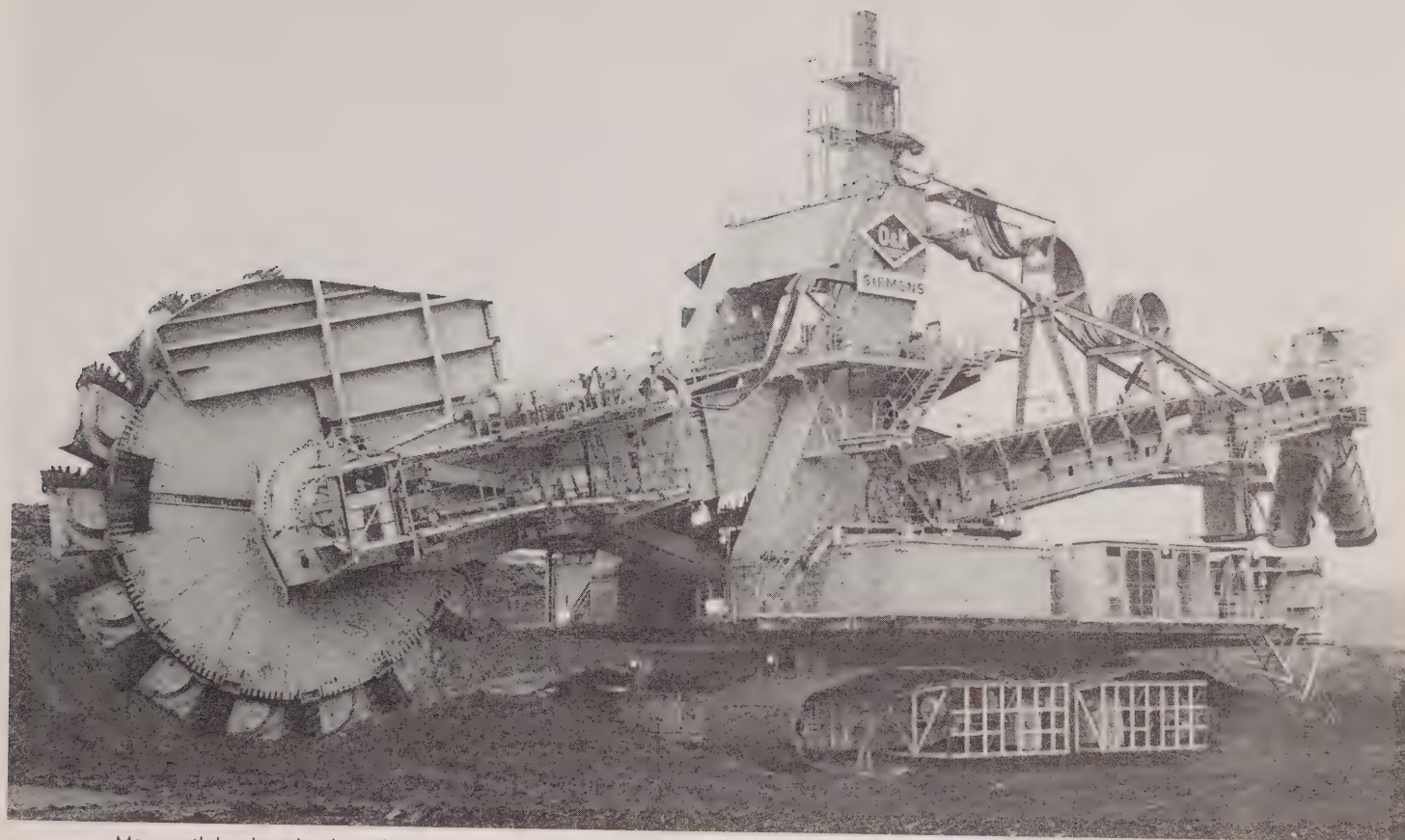
know-how for the new product line at the Dundas plant at a cost not exceeding 2.5 percent of net sales, for a period of 15 years.

The investment was allowed because the Government concluded that it would be beneficial to Canada in several very important respects. The investment, if successful, would greatly increase prospects for employment and utilization of materials, parts and components produced in Canada, provide considerable import replacement and increase export potential. Canadian participation was guaranteed in the management and direction of the firm, and would be considered seriously in relation to its equity. The planned modernization and reorganization of the Dundas facilities would significantly improve their productivity and industrial efficiency. While custom fabricating would continue, the introduction of proprietary products, hydraulic excavators and bucketwheel excavators would ensure a more balanced workload and, consequently, greater utilization of the plant. Competition would be enhanced in a Canadian market principally supplied by imports for these products. Finally, the transaction conformed with national and provincial economic and industrial policies.

O & K Canada today

For the past several years the company has concentrated its efforts in two areas: the first was to make its Dundas facilities as efficient and technologically advanced as possible through a programme of rationalization and renewal of plant and equipment; the second consisted of a significant marketing and promotion effort aimed at increasing sales, introducing new products and, more importantly, trying to change the buying habits of major users of excavation equipment who have traditionally used cable equipment in major mining and other excavation activities and who are not as familiar with fully hydraulic equipment such as that produced by O & K. In other words, O & K saw a huge potential market for its products, which it had to develop, and had to gear its Dundas facilities to meet the anticipated demand.

"Anticipated demand", however, has been the key expression at O & K because actual demand for its products in mining and construction has been relatively weak. This reflects the soft conditions in the construction industry and the traditional reliance of North American mining on cable systems or cable equipment. This situation could change radically with the successful promotion of O & K's products and with certain major energy initiatives: in particular, new non-conventional oil developments (bucketwheel excavators), the renewed interest in and emphasis on



Mammoth bucketwheels such as the one above, built by O & K, will help dig out Canada's buried treasure, the oil in the tar sands.

coal (bucketwheel excavators and hydraulic shovels) and the construction of pipelines (excavators and pipeline valves). In spite of the rather uninspiring situation in the construction industry, O & K Canada has managed to keep its plant humming. Employment has risen from approximately 200 in 1974 to well over 300 in 1979, and that for a highly capital-intensive product line. The U.S. market has been a boon to the company, accounting for two thirds of its sales. This is largely the result of the creation of a sales network in the United States run by O & K Orenstein & Koppel Inc., which is the firm's U.S. promotional arm.

In the five years since its acquisition of the Dundas facilities, O & K has been most active on the industrial sales side, that is in sub-contracting activities. Examples are products such as equipment for the smelting and refining industry (hot metal cars, ladles, casting wheels and converters) and custom-designed products such as components for atomic power plants, steel mills and also components for armoured vehicles.

It is interesting to note how well O & K has complied with the undertak-

ings it gave in 1974. Officials in the Department of Industry, Trade and Commerce have identified O & K as a model foreign-controlled enterprise in Canada. One reason is its sourcing policy. One government official has stressed that, for certain products, O & K could not source any more of its components in Canada without re-inventing its German technology or moving its home manufacturing facilities to Canada. Up to 65 percent of the components used in some of its excavators are produced in Canada. It has bought virtually all its new equipment and materials in Canada, when such materials were available here.

As undertaken in 1974, O & K has given its Canadian subsidiary the freedom it needs to export its products. In fact, as previously mentioned, most of O & K Canada's product sales have been exports, mainly to the United States. The technology-transfer undertaking has been honoured and so has the research commitment to the point where the subsidiary has hired and maintained an important engineering research staff. Furthermore, after the initial participation of German managers for the introduction of new technology and products at the Dundas facilities, more and more of

the management is now being taken over by Canadians. Employees who were part of the acquisition in 1974 have kept their seniority and other benefits.

Though employment and sales have not increased at the rate anticipated in 1974, they have expanded, the former from 200 to well over 300 and the latter from \$90,000 (low figure was due to a lengthy work stoppage) to over \$11,000,000 in 1978. The other principal undertaking, that O & K would consider Canadian equity participation of between 25 and 49 percent, has not been possible to carry out yet. Considering the very real difficulties in the company's primary markets, its performance has been exceptional.

One of the major observations made by members of the German business mission in 1979 concerned the abundance of relatively cheap energy in Canada. The importance of O & K's investment will become clearer as Canada concentrates even more than it has on immense energy projects related to coal, natural gas and non-conventional oil, projects that will require the kind of equipment that O & K Canada is ready to deliver.

Pétromont: a key to Montreal's economic future

by Marie Plante

The need for rationalizing Canadian industry is no longer subject to debate. This is especially true for the petrochemical industry which is the foundation stone for a great number of other industries. So vital is the role of that industry, as a source of feedstocks for so many products, that it could easily be called the spinal cord of the economy. The recent creation of Pétromont, a consortium which includes Montreal's two largest petrochemical producers and a Quebec provincial government agency, is clear evidence that the importance of the petrochemical industry is fully recognized.

In its June 1978 report the Sector Task Force Committee on the Canadian petrochemical industry recommended that a concerted effort be made to direct investments to the three petrochemical centers in Canada, namely the province of Alberta, Sarnia (Ontario) and Montreal (Quebec). In the eyes of the Committee such a strategy would prevent the fragmentation of Canada's petrochemical industry and improve its efficiency through the exploitation of existing infrastructures and the reduction of transportation costs.

Montreal's petrochemical industry

Montreal has two major petrochemical companies: Gulf Canada Ltd., which produces 500 million pounds of ethylene a year; and Union Carbide Canada Ltd., which produces ethylene on a smaller scale, 150 million pounds a year. Together, they supply more than 400 small and medium-sized local enterprises, particularly in the plastics industry, as well as Hercules, which is a world-scale polypropylene producer. For those downstream industries to thrive in Montreal, however, would require an increasing quantity of feedstocks at competitive prices. To understand Montreal's situation better, a brief look at the activities of Gulf and Union Carbide would be useful.

With its petrochemical plant located in Varennes, a municipality on the south shore of the St. Lawrence River near Montreal, Gulf Canada is a subsidiary of the Gulf Oil Corporation of the United States. The Varennes plant, whose naptha supplies are from Gulf's Montreal-East refineries, produces ethylene, propylene as well as butylene, butadiene, acetylene and several other related derivatives. Approximately 60 percent of Gulf's petroleum is domestically sourced. Its major market is local derivative producers, including Union Carbide. Gulf's feedstocks are used as primary petrochemicals for producing resins, plastics, adhesives, synthetic fibres, solvents, specialty chemical products and synthetic rubber. Gulf has 200 employees.

Union Carbide Canada is a subsidiary of the Union Carbide Corporation of New York. Its plant is located in the east end of Montreal. Its principal primary petrochemical production consists of ethylene, propylene and other related derivatives (polyethylene and glycol). Four local refineries supply Union Carbide, namely Imperial Oil, B.P., Gulf and Fina. Union Carbide uses a considerable proportion of the primary petrochemicals it produces to manufacture a number of semi-finished and finished goods. It has 150 employees.

Without any improvement to the structure of Montreal's petrochemical industry, Gulf and Union Carbide might have faced an uncertain future. If production were to prove insufficient or its price uncompetitive, downstream industries would have to rely on alternative sources of supply, particularly if they wished to expand. But the investment necessary to improve the industry's structure was very large. One has only to consider the construction costs for new petrochemical facilities to appreciate the financial commitment required. The expansion of the Varennes plant alone will cost approximately \$500 million. Another consideration is the relative initial costs of constructing plants in Montreal compared to the Gulf Coast of the United States, where such investment is estimated to be 25 percent cheaper. This is due principally to the high relative costs associated with labour, materials and, most importantly, climate. The rigour of Canadian winters necessitates deeper foundations, heavier insulation and better heating systems.

Neither Gulf nor Union Carbide were ready to absorb, on their own, the huge costs associated with achieving world-scale production. Enter the Quebec Government, which was concerned with the health of that vital Montreal industry. The Government was well aware of the fact that what was at stake was not just the 350 jobs in Gulf and Union Carbide, but the over 20,000 jobs maintained by the downstream industries. In fact, it has been estimated that for each job in petrochemicals one can count 17 in primary manufacturing and up to 250 in secondary and other manufacturing.



Petrochemicals will enhance Montreal's economic future.

Ethylec

Given these high stakes, the Government of Quebec, through its provincial Crown corporation the Société générale de financement du Québec (SGF), became actively involved in the discussions for the consolidation and expansion of Montreal's petrochemical industry. The SGF is one of the Government's principal financial and industrial arms. Its mandate is to invest in Quebec businesses in industrial sectors considered vital to the economic growth of the province. With or without partners, the SGF seeks to ensure the survival and growth of important businesses on the basis of business standards of viability and profitability. The SGF is already involved in a number of different industries such as shipbuilding, electronics, mechanical equipment, pulp and paper processing, furniture and office equipment. Consistent with its investment strategy in other industries, the SGF formed a new subsidiary, Ethylec, which was to be its representative in a projected petrochemical consortium which would include Gulf and Union Carbide.

Pétromont

Gulf, Union Carbide and Ethylec undertook extensive discussions on the possibility of forming a consortium to integrate the activities of the two petro-

rochemical firms and increase Montreal's petrochemical production capacity to meet the needs of the local market. They decided to form the consortium as a partnership owned equally by the three participants.

The first phase of the project, financed in great part by Ethylec, consisted of integrating or rationalizing the activities of the two petrochemical firms. In addition, a study was to be carried out on the economic processing of heavier liquid hydrocarbon materials as a way of making the firms' use of crude oil more efficient. The second phase was to involve the expansion of Gulf's Varennes plant, doubling its production capacity and achieving the elusive world-scale production level.

FIRA and Pétromont

Ethylec is, obviously, Canadian-controlled, but Gulf and Union Carbide are U.S.-controlled firms, which means that the Pétromont project was subject to review under the provisions of the Foreign Investment Review Act. Having reviewed the application by the consortium, the Government concluded that the investment would bring significant benefits to Canada and, therefore, approved it last January.

Among the more obvious benefits were the rationalization and improved efficiency of Montreal's petrochemical

industry which, in turn, would ensure that downstream industries could count on adequate supplies of feedstocks at competitive prices. The improved efficiency of primary petrochemical production would have a beneficial impact on employment and industrial possibilities downstream. The planned investment in the Varennes facilities would inject approximately \$600 million into the local economy, a conservative estimate when one considers the multiplier effect of such an investment. In addition, the possible increased efficiency of downstream industries could very well increase demand for primary petrochemicals, if not create whole new markets for them. It has also been suggested that the improved efficiency and viability of Montreal's petrochemical industry would, in itself, draw new industries to the area.

The investment was also seen as having a beneficial effect on Canadian participation in Montreal's petrochemical industry. With the SGF's share of the consortium (33 1/3 percent) and existing Canadian equity participation in Gulf and Union Carbide (25 percent each), Canadian equity participation in this large enterprise amounts to 50 percent.

The integration or rationalization of both production and administrative functions will undoubtedly be beneficial. World-scale production of a wide variety of primary petrochemicals as well as intermediaries and derivatives will result in significant economies of scale and more efficient use of crude oil, which together will improve the profitability of the business. The expansion plans for the Varennes facilities would use the latest technology in plant design, which is estimated to be 30 percent more energy efficient than any plant currently operating in Canada. With the participation of Gulf and Union Carbide, Pétromont will have access to results of advanced research being carried on by the parents of the two subsidiaries.

The Government of Quebec's participation in the consortium through Ethylec (SGF) was a clear indication of its support of the investment. The creation of Pétromont is consistent with Quebec's economic development strategy, as articulated in its 1979 policy document *Bâtir le Québec*. The policy underlines the importance of certain basic industries which "are vital economic development matrices ... This is true of the petrochemical industry." In fact, reference was made in that document to the establishment of a consortium like Pétromont as a foundation stone for Montreal's petrochemical future.

Montreal's petrochemical industry now has the tools necessary for increasing its efficiency and growth and, with the help of Ethylec, joining Sarnia and the province of Alberta as world-scale producers of petrochemicals.

Are foreign subsidiaries more innovative?

by Herman P. Bones

There are few countries in which the role of foreign investment has attracted more attention or generated more controversy than Canada. As part of the continuing debate on this subject, the impact of foreign-controlled firms on domestic innovative capacity has been a topic of particular interest. And one element that often is cited as important concerns the research and development activities of foreign-controlled firms.

Past investigations have generally concluded "... that subsidiaries perform either as well as or better than Canadian-owned firms in terms of R&D."¹ Such findings, however, have been based either on highly aggregate statistics, which do not distinguish Canadian from foreign-controlled firms, or on sample surveys and case studies, the validity and representativeness of which it has been difficult to determine. Data allowing direct comparisons of the R&D activities of Canadian and foreign-controlled firms have only recently become available.²

Analysis of the new data shows that more than 80 percent of industrial R&D is performed by manufacturing and is concentrated in seven key industries — aircraft and parts, electrical products, petroleum, machinery, chemicals, primary metals, and pulp and paper. These industries, although accounting for just 40 percent of manufacturing value added, make up 85 percent of manufacturing R&D. In addition, when their R&D expenditures are related to overall measures of industry size (sales, value added), they are the most research-intensive (see Table 1).

Manufacturing also accounts for 60 percent of all foreign control in the economy and it is the only sector, other than mining, in which foreign-controlled firms are predominant, with the level of control reaching 57.7 percent in 1975. Foreign control is highest in the most research-intensive industries, with foreign-controlled firms accounting for over 80 percent of sales in 1975.

The predominance of foreign-controlled firms in the research-intensive industries does not mean that they are necessarily more research-intensive than their Canadian-controlled counterparts but only that they tend to be concentrated in those industries where most R&D is performed. For example, Table 2 relates the R&D expenditures of Canadian- and foreign-controlled firms in the research-intensive industries to their

respective level of sales in 1975. Where possible, industries have been further disaggregated to produce more precise results. With one minor exception, these data show that even in the most research-intensive industries, the R&D expenditures of Canadian-controlled firms are higher relative to sales than their foreign-controlled counterparts.

Despite their lower R&D-to-sales ratio, it would be premature to conclude that foreign-controlled firms are less technology-intensive than their Canadian-controlled counterparts. R&D expenditures do not account for a foreign-controlled company's access to imported technology. The importance to subsidiaries of parent technology is reflected in their payments to non-residents for technology-related services. While the notion of "technology-related payments" is imprecise and while there often is no explicit charge associated with transfers of technology with multinational corporations, the figures that are available seem quite striking. Even when the analysis is limited to visible payments for patents, industrial designs, royalties and scientific and research services (which excludes the more general categories of engineering services, and professional and management services), and when these are added to firms' R&D expenditures, the divergence between Canadian and foreign-controlled firms disappears in a most systematic manner (see Table 3). Because of the statistical and definitional problems mentioned above, probably not too much significance should be attached to the precise figures in Table 3. However, they do tend to confirm that foreign subsidiaries are no less and, in fact, probably more technology-intensive than their Canadian-controlled counterparts, and that their access to foreign technology is the principal reason for their lower research intensity.

The stronger economic performance of Canada's technology-intensive indus-

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tries is now well documented. They have been shown to have higher aggregate rates of growth in output, employment and productivity, and lower rates of price increases.³ In a similar fashion, it seems that foreign-controlled firms' access to imported technology gives them a competitive edge over their Canadian-controlled counterparts. They are much larger in size and "... labour productivity in foreign-owned firms is higher (and) ... foreign-owned corporations tend to earn higher profits."⁴

At the same time, foreign-controlled firms would appear to export less than Canadian-controlled ones. Table 4 compares U.S.-controlled firms' share of sales and exports in the most research-intensive industries and, although data are unavailable, it seems reasonable to assume that a similar pattern would exist for other foreign-controlled firms as well. On this basis, it is seen that foreign-controlled firms, although accounting for almost 75 percent of sales in 1970, were responsible for only 35 percent of exports.

The poorer export performance of foreign-controlled firms may seem paradoxical in light of their better profit and productivity record. To a large extent, this reflects the impact on their

Table 1 — Foreign control and research intensity by research-intensive industry, 1975

	Foreign control of industry sales %	R&D/Value added (total industry) %
High research intensity	82.0	4.2
Aircraft and parts	82.7	11.0
Electrical products	65.6	5.1
Petroleum	96.0	4.6
Machinery	67.5	3.2
Chemical products	82.9	2.5
Medium research intensity	32.4	1.2
Primary metals	17.1	1.8
Paper and allied	43.6	0.7
Other manufacturing	51.6	0.3
Total manufacturing	57.7	1.3

Source: Statistics Canada

Table 2 — Relative sales and R&D by research-intensive industry, 1975

	Canadian-controlled		Foreign-controlled	
	% Sales	% R&D	% Sales	% R&D
Pulp and paper	56.4	67.2	43.6	32.8
Primary metals	82.9	86.0	17.1	14.0
Ferrous	87.0	88.8	13.0	11.2
Non-ferrous	78.6	85.2	21.4	14.8
Electrical products	34.4	59.2	65.6	40.8
Machinery	32.5	31.4	67.5	68.6
Business machines	14.8	11.3	85.2	88.7
Other machinery	35.0	43.8	65.0	56.2
Chemicals	17.1	31.7	82.9	68.3
Pharmaceuticals	13.2	29.3	86.8	70.7
Other chemicals	18.3	33.2	81.7	66.8
Aircraft and parts	17.3	41.9	82.7	58.1

Note: The petroleum industry is excluded since the data on R&D by firm group is confidential.
Source: Statistics Canada

Table 3 — Relative "R&D" (including R&D and technology-related payments to non-residents) by research-intensive industry, 1975

	Canadian-controlled firms		Foreign-controlled firms	
	% Sales	% "R&D"	% Sales	% "R&D"
Pulp and paper	56.4	52.7	43.6	47.3
Primary metals	82.9	78.9	17.1	21.1
Electrical products	34.4	53.2	65.6	46.8
Machinery	32.5	25.0	67.5	75.0
Chemicals	17.1	19.7	82.9	80.3

Note: If Northern Telecom were excluded, Canadian-controlled firm's share of sales and "R&D" in Electrical products would be roughly equivalent, about 20 percent in each case.

Source: Statistics Canada

more diversified production activities of the historically high levels of tariffs imposed on manufactured goods both in Canada and abroad. In fact, it has recently been shown that Canadian-controlled firms, because of their more limited product range, are generally more specialized than their foreign-controlled counterparts.⁵ The findings in this paper indicate that they are also concentrated in relatively less-technology-intensive areas. Accordingly, in their own product fields, Canadian-controlled firms are probably competitive both domestically and abroad but, because of their greater specialization, the Canadian market accounts for a relatively smaller proportion of their overall sales.

There has been a tendency on the part of some observers to attribute the more fragmented production structure of foreign-controlled firms, and their subsequent lack of exports and R&D, to foreign ownership *per se* instead of more fundamental causal factors. It is important to note in this context that similar variations in product diversification occur among firms even in countries where foreign investment is insignificant. Thus it is unlikely, given the small domestic market and significant domestic and foreign trade barriers, that the behaviour of these more diversified firms would be very different, even if they were Canadian-controlled and the necessary technology had been acquired through other channels such as licensing agreements and joint ventures.

Japan is often cited as a case where an indigenous innovative capacity has been developed by retaining domestic control of industry while relying on licensing

arrangements with foreign firms for technology. However, this overlooks the fact that the national market in Japan is sufficiently large to allow domestic producers to achieve the minimum critical size required for meaningful R&D programs, despite the existence of trade barriers. A strong case can be made that the licensing option would have left Canada relatively worse off, given its small internal market. Licensing agreements generally preclude exports to a much greater degree than parent/subsidiary relationships, and provide no access to other types of foreign expertise in areas such as marketing, administration, production control and personnel training.

It has been argued in the past, given the higher profits and productivity and the greater technological intensity of foreign-controlled firms, that the substitution of more domestic R&D for imported technology would be inefficient, since Canada would only be duplicating at much greater cost and risk that which is already available from foreign sources. This fails to recognize, however, that the divergence in the research activities of Canadian and foreign-controlled firms is more than just a quantitative one.

R&D covers a wide range of activities, and firms with comparable expenditures may be involved in fundamentally different types of work. For example, considerable emphasis has been placed in previous studies on the tendency of foreign subsidiaries to use the basic designs and processes of their parents, while concentrating their own R&D efforts on adapting this technology to the special

requirements of the small Canadian market. In fact, the relationship between subsidiaries and their parent corporations can vary widely, from one of relatively complete autonomy to that of largely dependent branch plants with limited decision-making and policy-making authority. Similarly, in the conduct of R&D, examples can be found of firms doing relatively independent research projects. Despite extensive work, therefore, no clear impression has emerged of the degree to which R&D expenditures of foreign subsidiaries reflect adaptation functions, as opposed to truly innovative activities, and there is even less agreement on what would constitute the optimal mix.

The data now available confirm that subsidiaries draw heavily on the technology of their parents. Of course, access to imported technology does not necessarily mean that foreign-controlled firms' R&D expenditures are qualitatively different from those of Canadian-controlled firms. However, the small size of most Canadian markets, relative to the number of products and production runs, has generally been viewed as insufficient to support extensive R&D programs.⁶ This has led to the observation that firms with large R&D expenditures, although servicing the domestic market, must also strongly orient themselves toward export markets. On the basis of their export performance, therefore, there is little doubt that R&D in most subsidiaries is not only quantitatively less, but also qualitatively different.

Overall, the lack of specialization by foreign subsidiaries has tended to reduce their level of R&D expenditures because domestic sales have generally been insufficient to support the R&D required to develop new products and production techniques. More fundamentally, however, it also affected the qualitative make-up of the remaining R&D effort, directing it toward adaptive functions for the domestic market, as opposed to more innovative work aimed at exports.

No country is technologically independent and, because of Canada's small size, imported technology will continue to account for a significant part of its technological base. However, it seems clear from the preceding analysis that the net gains from both imported technology and domestic R&D performed by foreign-controlled firms, have not been maximized due to insufficient opportunities for greater specialization.

The need for greater rationalization in Canadian manufacturing has long been recognized. The evaluation of this question, however, has been discussed almost exclusively in terms of the free trade issue. The proponents of free trade, although clearly showing the efficiency losses inherent in limited scale

and specialization, have tended to focus on the overall gains in the long run of economy-wide tariff cuts. The problem with this approach is that it tends to ignore the path of adjustment to this better position, specifically in terms of the impact on those individuals and industries who would lose at least in the short run as a result of these measures.

The somewhat narrow perspective of the free trade literature is unfortunate since the most significant gains from increased specialization would occur within industries, especially on the part of foreign-controlled firms in the technology-intensive sector. Of course, because the decision by foreign firms to locate in Canada has commonly been attributed to the influence of tariffs, it has often been asserted that trade liberalization would result in their departure, with Canadian operations reverting to a simple distribution function for imports.

This view fails to account for the significant changes which have occurred in the Canadian economy over the last 25 years. A well-educated and highly trained labour force, a sophisticated service economy, especially in financial and capital markets and in the supporting infrastructure of transportation and communications, and a relative abundance of increasingly scarce energy sources, especially in hydro-electricity and natural gas, combine to give Canada a comparative advantage which did not exist many years ago. Indeed, many foreign-controlled firms, as a result of tariff reductions in the 1960s, have already started to rationalize at least parts of their operations, and they are becoming more research-intensive and export-oriented.

The further reduction of both domestic and foreign tariffs, as a result of the most recent GATT negotiations, should provide additional incentive and opportunities for greater rationalization in the technology-intensive sector. This is the area where tariffs have had their most detrimental effect and where the potential for export growth is greatest, given current trends in international trade. The achievement of greater specialization in the technology-intensive industries would require some restructuring in the current pattern of production but, fortunately, these adjustments could be handled largely within existing firms. More importantly, however, the benefits of increased specialization would be clearly visible in the form of overall increases in employment and production.

More efficient use would be made of highly qualified manpower, as resources now engaged in adapting imported technology would be released for more innovative work in those fields where firms chose to specialize. In this manner, access to foreign technology could be maintained, but it would act to complement and not distort or substitute for domestic R&D. In addition, the growth in new exports of technology-intensive commodities would reduce the current account deficit in end products, and the overall increase in national productivity would act to strengthen even further Canada's international competitive position.

In brief, it is time to recognize that Canada, although benefiting enormously as a consumer of technology-intensive products, has hardly started to exploit the payoff from their production to its full potential.

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Table 4 — Relative export performance in the high research-intensive industries, 1970

	U.S. — controlled firms		Other foreign- controlled firms		All foreign- controlled firms	
	% sales	% exports	% sales	% exports (est.)	% sales	% exports
Electrical products	55.0	25.9	8.0	3.8	63.0	29.7
Machinery	70.6	33.6	6.4	3.0	77.0	36.6
Chemicals	59.2	29.3	23.3	11.5	82.5	40.8
TOTAL	61.3	30.8	12.7	5.0	74.0	35.8

Note: Total exports from these industries accounted for 15 percent of all Canadian exports and 40 percent of end product exports in 1970.

Source: U.S. Tariff Commission and Statistics Canada

Capital investment projects in Canada

Manufacturing industries

This list shows major capital spending projects in progress or firmly committed in the manufacturing sector. Except for a few small projects of particular interest, only projects costing over \$10 million are included. Information on these projects has been obtained from press reports. Other sectors will be covered in the next issue of the Foreign Investment Review. This report was prepared by the staff of the Foreign Investment Review Agency with the assistance of the Economics Department of the Bank of Nova Scotia.

Capital spending in the manufacturing sector is expected to be particularly strong in 1980. A recent survey of large firms by Industry, Trade and Commerce showed that firms in this sector are expecting to increase their capital expenditures by about 29 percent in real terms. The largest increases are likely to be in transportation equipment, primary metals and forest products.

In the forest industry sector, many companies are engaged in very large expansion or renovation programs. For example, MacMillan-Bloedel Ltd. recently increased its five-year capital spending program to \$1.5 billion while Abitibi-Price Inc. will spend \$1 billion and Crown Zellerbach \$300 million in the next five years. Such programs include many projects that are not individually large enough to be included in the following list of major projects.

In 1980 capital spending in the transportation equipment sector is expected to be double its 1979 level. Of particular importance are the large expenditures by the major automotive companies but many manufacturers of automotive parts and accessories have also announced expansion projects, though some of them were below \$10 million.

Although major petrochemical projects totalling some \$800 million have been completed in the past year, new projects continue to be announced for this industry. In Alberta the Alberta Gas Ethylene Company, which has only recently completed its 1.2 billion lb. per day ethylene plant, announced plans for a second plant of equal size at the same location. Alberta Energy Co. plans a new synthetic natural gas plant as well as a benzene plant, the latter in partnership with Esso Chemicals Canada. At Sarnia, Ontario, Imperial Oil Limited will build a new polyethylene facility. In the Montreal area, the new petrochemical joint venture by Gulf Canada Ltd., Union Carbide Canada Ltd. and the Société générale de financement du Québec will study the possibility of doubling ethylene capacity.

Company and project description	Completion date	Cost (\$million)	Location
British Columbia			
Alcan Smelters and Chemicals Ltd. New carbon paste plant	1982	46	Kitimat
British Columbia Forest Products Ltd. Third newsprint machine	1982	150	Crofton
Crown Zellerbach Canada Ltd. New sawmill	1981	46	Coquitlam
Pulp and paper mill expansion	1982	171	Elk Falls
Doman Industries Ltd. New sawmill	1980	20	Nanaimo
Evans Products Co. Ltd. Expansion, forest products	1986	10	Lillooet
Finlay Forest Industries Ltd. Expansion, pulp mill, new sawmill	n.a.	32	MacKenzie
Lakeland Mills 1973 Ltd. Sawmill expansion	n.a.	15	Prince George
Mayo Forest Products Ltd. New sawmill	1980	16	Nanaimo
MacMillan Bloedel Ltd. Newsprint expansion	1981	163	Powell River
Modernize kraft pulp bleaching	n.a.	19	Harmac
New sawmill	1982	50	Chemainus
Rebuilding plywood mill	1980	22	Port Alberni
Modernize newsprint machines	1980	23	Port Alberni
Pulp mill expansion	n.a.	75 - 220	Nanaimo

Northwood Pulp and Timber Ltd. Pulp mill	1982	245	Prince George
Ocelot Industries Ltd. New methanol plant	1981	140	Kitimat
Prince George Pulp & Paper Ltd. and Intercontinental Pulp. Co. Ltd. Expansion, under study	n.a.	150 - 250	Prince George
Rayonier Canada Ltd. Sawmill modernization	1980	22	Vancouver area
Improvements, pulpmill	1980	20	Port Alice
Modernize kraft pulp mill	n.a.	200	Woodfibre (near Squamish)
Tahsis Co. Ltd. Sawmill improvements	1980	20	Tahsis
Tree Island Steel Co. Ltd. New steel rolling mill	1980	50	Richmond
West Fraser Timber Co. Ltd. and Daishowa Canada Ltd. New thermo-mechanical pulp mill	1981	70	Quesnel

Alberta

Alberta Gas Chemicals Ltd. Methanol plant expansion	1982	130	Medicine Hat
Alberta Gas Ethylene Company Ltd. Second ethylene plant	1984	370	near Joffre
British Columbia Forest Products Ltd. Lumber mill	1981	21	Grande Cache
Sawmill	1982	23	Fox Creek
Newsprint complex	1985	165	Hurdy
Canada Cement Lafarge Ltd. Cement plant expansion	1980	70	Exshaw
C-I-L Inc. Polyethylene plant expansion	1981	45	Edmonton
Dow Chemical of Canada Ltd. Ethylene glycol plant	1980	95	Fort Saskatchewan
Esso Chemicals Canada Ammonia and urea fertilizer plant (planned)	1983	300	Edmonton
Genstar Ltd. Cement plant expansion	1980	78	Edmonton
Interprovincial Steel & Pipe Corp. Ltd. New spiral pipe mill	1981	12	Edmonton
Liquid Carbonic Canada Ltd. Expansion	1980	n.a.	Fort Saskatchewan
Molson Companies Ltd. Brewery expansion	1983	24	Edmonton
Petrochemicals Alberta Project Benzene plant	n.a.	216	Fort Saskatchewan
Procter & Gamble Co. of Canada New sawmill	1980	15	Grande Prairie

Manitoba — Saskatchewan

Dominion Bridge Co. Ltd. (Manitoba Rolling Mills) Expansion, steel rolling mill	n.a.	6	Selkirk, Man.
Interprovincial Steel & Pipe Corp. Ltd. Expansion — 1st phase	1980	45	Regina, Sask.
— 2nd phase	1981	29	Regina, Sask.
Prince Albert Pulp Co. Ltd. Modernization, bleached kraft pulp mill	1980	40	Saskatoon, Sask.
New sodium chlorate plant	1980	8	Saskatoon, Sask.
Truro Gypsum Products Ltd. Wallboard plant expansion	1980	5	Saskatoon, Sask.
Versatile Cornat Corporation Expansion, tractor assembly	1981	26	Winnipeg, Man.

Ontario

Abitibi-Price Inc. Replace sulphite mill	1980	18	Thunder Bay
Air Products and Chemicals (Canada) Ltd. New air separation plant	1980	n.a.	Nanticoke
Liquid hydrogen plant	1981	n.a.	Sarnia
Algoma Steel Corp., Ltd. Heat treating line, plate mill		24	Sault Ste. Marie
Upgrade and expand rail and structural mill	1981	15	
Upgrade hot strip mill	1982	49	Sault Ste. Marie
American Can of Canada Ltd. Pollution abatement and modernization	1981	60	Marathon
Canadian International Paper Co. Ltd. Expansion, tissue plant	1981	36	Toronto
Consumers Glass Co. Ltd. New glass container plant	1980	20	Milton
Dominion Foundries and Steel Ltd. Second hot strip mill	1983	350	Hamilton
Galvanizing line	1981	40	Hamilton
Dow Chemical of Canada Ltd. Expansion, polypropylene glycol plant	1981	11	Sarnia
E.B. Eddy Forest Products Ltd. Pulp and bleach facilities, speciality paper machines and other projects	n.a.	225	Espanola
Erco Industries Ltd. Expansion sodium chlorate plant	n.a.	15	Thunder Bay
Euclid Canada Ltd. Expansion	1981	12	Guelph
F.W. Fearman Co. Ltd. Addition to meat packing plant	1980	10	Burlington
Firestone Canada Ltd. Expansion, steel products plant	1981	20	London
Ford Motor Company of Canada Ltd. New engine plant	1981	535	Windsor
Aluminum castings plant	1980	44	Windsor
Fruehauf Trailer Co. of Canada Ltd. New plant to manufacture van trailers	1980	12	Ingersoll
General Motors of Canada Ltd. Expansion, transmission plant	1982	2000	Windsor
Conversion and expansion	1982		St. Catharines
B.F. Goodrich of Canada Ltd. Radial tire plant	1981	11	Kitchener
Increased capacity	1980	6	Thorold
Great Lakes Forest Products Ltd. Modernization, paper plant	n.a.	200	Dryden
Hayes-Dana Ltd. Expansion, axle plant	1981	25	Barrie
Imperial Oil Ltd. Polyethylene plant	1983	100	Sarnia
Jannock Corp. Ltd. Steel tube mill	1980	19	Toronto
Lake Ontario Steel Co. Ltd. Steel plant expansion	1980	85	Whitby
William Neilson Co. Ltd. Confectionery plant renovation	1981	11	Toronto
Spruce Falls Power & Paper Co. Ltd. Modernization, new thermo-mechanical pulp mill, pollution control	1982	88	Kapuskasing
Stanley Steel Co. Ltd. Steel plant expansion	1980	10	Hamilton
The Steel Company of Canada Ltd. New steel plant	1982	1250	Nanticoke
Expansion program	n.a.	365	Nanticoke, Hamilton
Union Carbide Canada Ltd. Expansion, polyethylene products	1981	40	near Sarnia
Uniroyal Inc. Increased capacity, tire plant	1982	23	Kitchener
Westinghouse Canada Ltd. Gas and steam turbine components plant	1980	30	Renfrew

Zymaize Company
(Redpath Industries Ltd. and John Labatt Ltd.)
Corn sweetener plant

1980 60 London

Québec

Abitibi-Price Inc. Conversion to uncoated groundwood papers	1980	32	Kénogami
Alcan Aluminium Ltd. New smelter — 1st phase	1980	200	Grande Baie
— 2nd phase	1981	90	Grande Baie
— 3rd phase	1982	150	Grande Baie
Upgrade alumina plant	1982	42	Vaudreuil
Canada Malting Co. Ltd. Malt processing plant	1980	16	Montréal
Canadair Ltd. Assembly plant	1980	25	Dorval
Canadian International Paper Co. Speed up paper machine	1980	19	Gatineau
Consolidated-Bathurst Ltd. New pulp mill	1981	25	Grand'mère
Renovations, newsprint mill	1980	12	Shawinigan
Donohue-Normick Inc. Newsprint mill	1982	140	Amox
Finachem Canada Inc. Polystyrene plant	1981	15	Montréal
Forex Inc. Waferboard plant	1981	19	Val d'Or
Hercules Canada Ltd. Polypropylene film plant	1980	30	Varenes
Kruger Pulp & Paper Ltd. Modernization, newsprint mill	1980	35	Bromptonville
Modernization, newsprint mill	1980	12	Trois Rivières
Normick-Perron Inc. Waferboard plant	1980	10	La Sarre
Ogilvie Mills Ltée Mushroom plant	1980	10	near Montréal
Pratt and Whitney Aircraft of Canada Expansion	1980	35	Longueuil
Rolland Inc. Paper machine rebuild	n.a.	12	Mont-Rolland
Expansion, fine paper	n.a.	14	St. Jerome
Sotispro Technologie Ltée New dairy products plant	n.a.	10	St. Hyacinthe
Tembec Forest Products Inc. Expansion, sulphite pulpmill	1980	12	Temiscaming

Atlantic Provinces

Abitibi-Price Inc. Conversion to newsprint production	1981	60	Stephenville, Nfld.
Bowater Newfoundland Ltd. Improvements, newsprint mill	1980	10	Corner Brook, Nfld.
MacMillan Rothesay Ltd. Improvements, newsprint mill	1980	11	Saint John, N.B.
Michelin Tires (Canada) Ltd. Expansion and new tire plant (planned)	n.a.	100	Granton, N.S. Bridgewater, N.S. Waterville, N.S.
New Brunswick International Paper Co. Expansion, newsprint mill	n.a.	125	Dalhousie, N.B.

n.a. — not available

Industrial incentives

Federal incentives

Over the years the federal government has developed a system of incentives that generally foster a number of economic objectives such as regional development, industrial expansion, international competitiveness, and research and development. These incentives are also designed to stimulate business capital spending and investor confidence. Below is a brief outline of those programs.

Department of Finance

Investment tax credit

An investment tax credit, which varies regionally from 7 percent to 20 percent, is available as a direct reduction from federal tax payable. This credit reduces the cost of most new buildings, machinery and equipment used principally in Canada in manufacturing and processing. In 1978 it was extended to expenditures on scientific research and development and to investment in equipment for rail, air, water and long-haul transport used principally for the purposes of transportation within or to and from Canada. The credit is limited in any one year to \$15,000 plus one half the federal tax payable in excess of \$15,000, but any unused credits may be carried forward for 5 years, subject to the same annual limits. In 1978, this tax credit was extended indefinitely beyond its scheduled expiry date.

Research and development incentives

The investment tax credit for R&D expenditures is 20 percent in the Atlantic Provinces and 10 percent in the rest of Canada, while small businesses are allowed a special R&D tax credit of 25 percent. In addition to writing off 100 percent of current and capital expenditures for R&D, taxpayers can deduct from their income a further 50 percent of any increase in such expenditure over the average level of the previous three years.

Accelerated capital cost allowance for manufacturing and processing industries

Taxpayers may charge 50 percent straight-line depreciation on most new machinery and equipment for use in manufacturing and processing in Canada (including heavy-oil upgrading), thus writing off such assets in two years.

Inventory allowance

In recognition of the distortion of business income from inventory inflation, three percent of the opening cost of inventories (except real property and goods not for resale) can be deducted in calculating business income.

Special rate for corporate manufacturing and processing profits

A special rate of tax on manufacturing and processing activities carried on in Canada (including heavy-oil upgrading) reduces the general rate on corporate profits from 36 percent to 30 percent. Provincial corporate tax rates ranging from 10 percent to 15 percent are levied in addition to the applicable federal rate.

Special tax rates for incorporated small businesses

Small Canadian-controlled private corporations are accorded lower income tax rates on active business income derived from activities carried on in Canada. The federal rate is 10 percent in manufacturing and processing industries and 15 percent in other activities. Provincial corporate tax rates ranging from 5 percent to 12 percent of income are levied in addition to the applicable federal rate.

Employment tax credit

Employers hiring workers to fill newly created jobs which are additional to their normal work force may be entitled to a tax credit which varies regionally.

Department of Regional Economic Expansion

Development incentives for designated regions

The Department offers cash incentives to firms that establish themselves, expand or modernize their installations in the following designated regions: Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, Northwest Territories, Quebec (except for the Montreal region which is discussed later), Northern Ontario, Northern Alberta and British Columbia.

Most manufacturing and processing firms are eligible for the development incentives and loan guarantees. Facilities for primary processing — oil refining and certain pulp and paper industry activities — and commercial facilities are not eligible. However, loan guarantees may be offered to business offices, warehousing and freight handling facilities, shopping centres, convention facilities, hotels and motels, recreation centres and research establishments.

Incentives for the construction of new facilities or the expansion of existing ones to produce new products are provided in the following way: a) 25 percent of approved capital costs plus \$5,000 a project and b) \$30,000 for each job created. Incentives for modernizing facilities or increasing production capacity are equal to 20 percent of the investment. The Department guarantees loans to service firms in order to help them obtain favorable financing terms. **Contact:** Industrial Incentives Branch, Department of Regional Economic Expansion, Ottawa, Ontario, Canada K1A 0M4.

Incentives for Montreal as a designated region

The Department also has an incentive program for businesses wanting to establish themselves in the Montreal region. The incentives are based on approved capital costs. The amount offered varies with the nature and location of the project. The maximum level of an incentive is 25 percent of the approved capital costs.

Only the industries involved in the following activities are eligible for the incentives: food industries dealing in prepared and quick frozen foods; metal, electrical and plastic products; metal fabricating; machinery; transportation equipment; chemicals and chemical products; scientific and professional equipment; miscellaneous manufacturing; and research and development, including research centers. A minimum investment of \$200,000 is required. **Contact:** Department of Regional Economic Expansion, Tour de la Bourse, 300 Place Victoria, P.O. Box 247, Montreal, Quebec, Canada H4Z 1E8.

Department of Industry, Trade and Commerce

Enterprise Development Program (EDP)

This program assists small- and medium-sized manufacturing and processing businesses to become more viable and internationally competitive. Introduced three years ago, the program is expected to provide about \$1.3 billion to Canadian business over the next five years.

In order to receive assistance, the applicant must prepare and submit a plan that shows how the project will affect the firm's viability. EDP officers analyse the firm's resources (human, financial, physical and technological), the potential and limits of the market, and the plans for deploying the resources and penetrating the Canadian and foreign markets. The results of the analysis are submitted for approval to the Enterprise Development Board, which is composed of businessmen and public servants.

The two main forms of assistance are cost-sharing and loan insurance. Cost-sharing is available for marketing and productivity studies, and innovation and design projects. Loan insurance is generally used for the expansion or modernization of facilities, working capital, mergers and acquisitions.

The eligibility criteria focus on the viability of the firm and project and on the

firm's ability to finance its projects. As for cost-sharing, the activities must represent a heavy financial burden for the firm when compared with its resources. Loan insurance is provided on a last-resort basis to firms unable to obtain debt capital on reasonable terms and conditions. Firms seeking loan insurance must have called upon other institutions such as the Federal Business Development Bank before applying to the Department.

Manufacturing and processing firms are generally eligible for all forms of assistance offered by the program. Firms in the service sector can obtain loan insurance if they can demonstrate that their services will produce a direct, tangible and substantial benefit for manufacturing and processing firms.

Special assistance to general and special trade contractors

The program provides an extension of EDP loan insurance and other benefits to general and special trade contractors, especially those who want to improve their position on the international market and who are interested in constructing turnkey operations. It is designed to help Canadian firms to modernize facilities, re-equip themselves and even merge with other firms in order to bid competitively for large foreign capital projects. **Contact:** Enterprise Development Board, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5

Program for Export Market Development (PEMD)

The purpose of the program is to help Canadian suppliers penetrate new export markets or increase their exports. Financial assistance is provided in the form of a repayable loan (in the event of success) for eligible expenses: 1) when a firm presents bids involving unusually large and complex capital expenditures; 2) in cases of exceptional international competition; and 3) for establishing a consortium to respond to demand in foreign markets.

The program has five sections offering a wide range of assistance designed to meet the needs of industry. The program encourages participation in major projects abroad, export market identification or adjustment, trade fairs abroad, trips to Canada by potential buyers and the formation of export consortia. About 2,000 firms use this assistance program each year. **Contact:** Program for Export Market Development, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Small Business Loans Act

Department of Industry, Trade and Commerce guarantees loans made to small businesses whose gross annual income does not exceed \$1.5 million during the year in which the loan is made or, in the case of a new firm, if the estimated income in the first financial period — at least 55 weeks — does not exceed \$1.5 million.

All chartered banks, Alberta Treasury Branches and designated financial institutions — credit unions, trust, loan, insurance and finance companies — are authorized to make loans under the provisions of the Act.

Loans may be authorized to finance the cost of stationary and transportation equipment, of buildings and land necessary for operating a commercial venture and construction, installation, renovation, improvement or modernization of facilities.

The maximum rate of interest payable on SBLA loans is one percent over the prime lending rates of the chartered banks. The repayment period may not exceed 10 years. The terms of the loan are settled between the lender and the applicant without prior reference to the government. The amount to be repaid may not exceed \$75,000 and the applicants must invest a reasonable portion of the purchasing cost out of their own resources. **Contact:** Bank manager or the Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Machinery Program

This program provides for the remission of customs duties on imports of machinery not manufactured in Canada but of vital importance for the firm. **Contact:** Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Other programs

Other programs have been developed for shipbuilding, trade fairs and missions, defence production, footwear and tanning, fashion, and export growth and development. **Contact:** Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Export Development Corporation (EDC)

The Corporation provides financial assistance for Canadian export business

by means of insurance, loans, guarantees and other services. The value of EDC's financial assistance amounts to billions of dollars a year.

The EDC has extensive powers for helping all firms in Canada, regardless of size, insuring them against non-payment by foreign buyers of Canadian goods and services in almost all export sectors.

Through its "Risk Protection" insurance, the EDC can insure financial institutions against calls on surety instruments provided on behalf of Canadian exporters and can insure consortium members against the possibility of non-performance by another member of the consortium. The EDC also extends long-term loans, or guaranteed loans, to foreign buyers of Canadian goods and services. These loans are arranged in the private sector with interest rates which are the most competitive possible in the international market. The EDC offers this service when the foreign buyer needs long-term (5 years or more) credit but cannot obtain it from private sources.

The EDC can insure Canadian firms investing abroad against political risks, including losses or damages resulting from expropriation, insurrection, war or the impossibility of converting profits or capital. Almost any interest an individual or firm can have in a business concern abroad is insurable, including shares, loans, contracts for administrative or technical services, royalties and licensing agreements. However, only new investments in developing countries are eligible for insurance at the present time, the main condition being that the investor maximize the benefits to be derived by Canada and the host country. **Contact:** Export Development Corporation, 110 O'Connor Street, Ottawa, Ontario, Canada K1P 5T9.

Federal Business Development Bank

The Federal Business Development Bank, a Crown corporation, offers financial assistance to businesses who cannot find it elsewhere on reasonable terms and conditions. The Bank is directed to give particular consideration to the needs of small businesses.

The Bank's assistance may take the form of loans, loan guarantees, share capital or a combination of these, according to what best suits the special needs of the firm. The loans, normally guaranteed against fixed assets, are extended at market rates. As for the share-capital program, the Bank usually takes a minority position and agrees to have its shares bought back on suitable terms.

Most of the Bank's customers spend the money they obtain in purchasing land, buildings or equipment. Others use it to augment their firm's working capital, to start up new firms or for other purposes.

In addition to financial assistance, the Federal Business Development Bank offers a management consulting, management training and information service to small businesses. **Contact:** Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.

Canadian Commercial Corporation (CCC)

Each year, the CCC helps more than 400 Canadian firms make transactions abroad involving a wide range of products from advanced electronics systems to commercial supplies of every description. A good many of these purchases are destined for aid programs of the Canadian International Development Agency (CIDA).

In many cases, the CCC is able to link Canadian suppliers with the purchasing services of foreign governments and international agencies, which are significant markets for Canadian firms. Thousands of bids can be submitted in this way each year. **Contact:** Canadian Commercial Corporation, 110 O'Connor Street, Ottawa, Ontario, Canada K1A 0S6.

National Research Council (NRC)

Industrial Research Assistance Program (IRAP)

Through this program the National Research Council analyses research projects submitted by industry and shares the cost of selected research projects. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Pilot Industry/Laboratory Program (PILP)

This is a shared-cost program between NRC laboratories and industrial firms. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Statistical tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status

	1975	1976	1977	1978	1979
Reviewable new cases	166	171	261	360	380
Carryover from previous period	52	54	65	73	106
Total of above	218	225	326	433	486
Total resolved	164	160	253	327	372
Allowed	116	124	231	282	320
Disallowed	21	19	12	28	24
Withdrawn	27	17	10	17	28
Carried over to next period	54	65	73	106	114
Allowed cases as percent of resolved (%)	71	78	91	86	86
Value of assets, all cases (\$000,000)	1,070	1,069	1,145	4,491	4,050

Table 2 — Country of control

	1975	1976	1977	1978	1979
Total	166	171	261	360	380
United States	116	109	171	243	248
United Kingdom	15	23	40	47	52
Other Europe	27	34	41	52	68
Austria	-	-	-	-	1
Belgium	2	1	2	1	2
Denmark	-	-	2	1	1
Finland	-	-	-	-	2
France	6	6	6	5	9
Germany, West	2	10	15	17	22
Greece	-	-	-	-	1
Italy	2	1	3	1	2
Liechtenstein	2	-	-	1	1
Luxembourg	-	3	-	1	-
Netherlands	5	-	4	8	6
Norway	1	-	-	1	-
Spain	-	-	-	-	1
Sweden	2	9	2	7	13
Switzerland	5	4	7	9	7
All other	8	5	9	18	12
Australia	1	-	1	-	3
Bermuda	2	1	-	-	1
Japan	2	3	3	7	2
Others	3	1	5	11	6
Allowed cases as percent of resolved	%	%	%	%	%
United States	77	73	91	87	85
United Kingdom	79	82	95	78	89
Other Europe	50	86	90	89	88
All other	30	100	80	80	93

Table 3 — Industrial sector

	1975	1976	1977	1978	1979
Total	166	171	261	360	380
Primary	18	15	20	30	29
Agriculture, fishing and trapping	1	2	4	5	4
Forestry	1	-	1	1	-
Mines, quarries, oil wells	16	13	15	24	25
Manufacturing	82	93	108	161	178
Food, beverage and tobacco	11	9	15	15	14
Rubber, plastic and leather	3	4	6	12	5
Textiles, knitting and clothing	3	3	5	4	14
Wood, furniture and paper	10	7	12	14	10
Printing, publishing, and allied	3	1	2	4	5
Primary metal and metal fabrication	9	19	12	20	34
Machinery and transport equipment	17	7	14	27	43
Electrical products	9	11	12	16	20
Non metallic mineral products	3	9	5	8	4
Petroleum and coal products	-	2	1	1	1
Chemical	11	15	10	22	17
Miscellaneous	3	6	14	18	11
Construction and services	66	63	133	169	173
Construction	2	2	3	1	6
Transportation, communications, utilities	6	9	10	11	9
Trade	37	38	72	102	93
Finance, insurance, real estate	14	8	15	19	12
Community, business, personal services	7	6	33	36	53

*Provision for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status

	1975	1976	1977	1978	1979
Reviewable new cases	6	196	328	331	379
Carryover from previous period	-	6	58	52	64
Total of above	6	202	386	383	443
Total resolved	-	144	334	319	372
Allowed	-	115	297	273	322
Disallowed	-	9	12	21	22
Withdrawn	-	20	25	25	28
Carried over to next period	6	58	52	64	71
Allowed cases as percent of resolved (%)	-	80	89	86	87
Planned investment, all cases (\$000,000)	5	324	803	323	202

Table 5 — Country of control

	1975	1976	1977	1978	1979
Total	6	196	328	331	379
United States	4	90	184	193	205
United Kingdom	-	22	30	26	45
Other Europe	1	63	85	80	82
Austria	-	-	-	3	-
Belgium	-	1	-	1	5
Denmark	-	5	6	4	2
Finland	-	1	1	1	7
France	-	9	17	16	15
Germany, West	-	22	26	18	19
Greece	-	-	1	1	-
Ireland	-	-	-	1	1
Italy	1	9	10	10	6
Liechtenstein	-	2	-	-	-
Luxembourg	-	-	-	1	-
Monaco	-	-	1	-	-
Netherlands	-	2	3	1	4
Norway	-	-	3	3	1
Portugal	-	-	-	1	-
Spain	-	1	-	2	1
Sweden	-	3	9	5	6
Switzerland	-	8	8	12	15
All other	1	21	29	32	47
Australia	-	2	3	3	2
Hong Kong	-	3	3	3	4
India	-	3	1	1	1
Japan	-	4	10	6	17
Others	1	9	12	19	23
Allowed cases as percent of resolved	%	%	%	%	%
United States	-	73	88	86	86
United Kingdom	-	93	82	85	92
Other Europe	-	80	95	87	88
All other	-	91	81	79	83

Table 6 — Industrial sector

	1975	1976	1977	1978	1979
Total	6	196	328	331	379
Primary	-	12	22	27	16
Agriculture, fishing and trapping	-	2	6	2	-
Forestry	-	-	2	2	1
Mines, quarries, oil wells	-	10	14	23	15
Manufacturing	2	67	94	99	100
Food, beverage and tobacco	-	3	7	6	11
Rubber, plastic and leather	-	4	5	5	9
Textiles, knitting and clothing	-	4	9	5	8
Wood, furniture and paper	1	5	5	6	9
Printing, publishing, and allied	-	-	-	4	5
Primary metal and metal fabrication	1	15	19	12	13
Machinery and transport equipment	-	6	19	19	20
Electrical products	-	7	5	7	8
Non metallic mineral products	-	3	5	6	1
Petroleum and coal products	-	-	-	-	-
Chemical	-	6	3	6	7
Miscellaneous	-	14	17	23	9
Construction and services	4	117	212	205	263
Construction	-	4	4	14	12
Transportation, communications, utilities	1	10	5	11	11
Trade	1	68	133	102	156
Finance, insurance, real estate	1	10	16	11	14
Community, business, personal services	1	25	54	67	70

*Provisions for review of new businesses came into force October 15, 1975.

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 - Personal notes on the review process
 - Historical perspective on acquisition trends
 - Major Canadian tax incentives to investment
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Canada's forest products industry
Ontario's economy
Foreign investment in the service sector

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Mr. Gray is seen here with Mr. Rokusuke Tanaka, Minister of International Trade and Industry.

Mr. Gray's visit to Japan

Arriving in Japan in August, only two months after Canadian and Japanese business representatives met in Kyoto at the third joint Japan-Canada Businessmen's Conference, the Honourable Herb Gray undertook an ambitious series of meetings with Japanese government and business representatives. The Minister covered a wide range of investment and trade issues including energy, increased access to the Japanese market for Canadian manufactured goods and Japanese investment in Canada. In fact, most of the issues considered during the Minister's visit had been the object of considerable discussion at the Kyoto conference.

At the top of the policy issues was the Foreign Investment Review Act, which some Japanese businessmen still view as a policy designed to block U.S. investment in Canada and consequently to reduce Canada's dependence on U.S. capital. Mr. E. Hashimoto, who was the head of the Japanese delegation at the May conference, made comments which were very representative of that view of the Act in his closing remarks: "According to our interpretation, the Act was legislation for the purpose of breaking away from the excessively heavy influence of U.S. capital on Canada's economy." He complained that in spite of the relatively small influence of Japanese business on Canada's economy, Japanese investments "... are subject to strictly uniform screening on the same basis at U.S. investments in ... applying the Act." Mr. Hashimoto's

comments on "strictly uniform screening" reinforce what Canada has been saying for a long time; that its foreign investment policy is non-discriminatory and that all investment proposals are decided on the same basis.

In a speech which he delivered to the Keidanren business group, Mr. Gray pointed out that Canada was interested in any investment that brings net benefits to this country. He also referred to the fact that most countries have an investment screening mechanism of one form or another and that Canada's policy was created for the same purpose as that of other countries, including Japan.

In that same speech, the Minister discussed the future of Canadian foreign investment policy, especially three new measures that are under active consideration by the federal government. Briefly stated, the first measure provides for the periodic performance review of the activities of large multinationals in Canada. The second would make possible the publication of major acquisition proposals by foreign firms prior to a decision being made by the Government to allow or disallow them. The third measure would involve the provision of financial assistance to Canadian companies wishing to repatriate assets under foreign control or to bid for ownership or control of companies in Canada which are the object of takeover offers by non-Canadians.

Mr. Gray underlined that these measures, in fact Canada's foreign investment policy, were closely allied to the federal government's industrial policy, the main

objectives of which are the following: to make it possible for Canada to take advantage of opportunities opening up; to promote the development of strong Canadian-owned businesses; to ensure that the activities of large foreign multinationals contribute to Canada's industrial goals; to encourage the growth and competitiveness of Canadian business; and to draw maximum benefit from foreign investments already in Canada.

The Minister summarized the new measures by saying that they were designed to strengthen the Canadian economy and to show foreign investors how they can contribute to improving Canada's industrial and economic performance.

Capital investment expected to rise

Capital spending in Canada is expected to increase significantly in 1980, according to three surveys released last Spring. Statistics Canada, the Government of Canada's official statistics agency, the federal Department of Industry, Trade and Commerce, and the Conference Board in Canada, an independent research organization, all reached this conclusion after having carried out independent surveys on capital investment plans and attitudes.

Statistics Canada estimated that the total capital expenditures would be \$64.3 billion in 1980, an increase of 12 percent over 1979. This improvement will be mostly due to a 17-percent increase in business spending. In particular, large increases are expected in oil and gas, mining and in certain manufacturing industries. On the other hand, capital expenditures by governments and institutions are expected to increase by only 6 percent, much less than the anticipated rate of inflation.

The federal Department of Industry, Trade and Commerce's survey of 300 major corporations noted that real capital spending by these companies is expected to increase by 15 percent in 1980 to \$25 billion, which is about half a billion dollars more than had been estimated six months earlier. The manufacturing sector, especially transportation equipment, primary metals and forest products, is expected to be responsible for most of the growth, with an expected increase in real terms of 36 percent. In non-manufacturing industries, strong increases are anticipated in oil and gas pipelines as well as in mining. Also of interest in the Department's survey is that the rate of increase in capital spending by foreign-controlled firms (22 percent) in Canada is expected to be twice as high as that of Canadian-controlled firms (11 percent) in 1980. From the

survey figures, the Department estimated that, for the economy as a whole, 1980 business spending on new plant and equipment may be up by 5 to 7 percent in real terms.

According to the second quarter survey of the Conference Board in Canada, opinion was divided among the 200 or so chief executive officers regularly surveyed as to whether or not it was a good time to invest in new plant and equipment. In fact, while just over 35 percent of those surveyed felt that it was a good time, 37 percent did not. The other respondents could not state one way or the other any definite opinion. This contrasts rather sharply with a year ago when close to 60 percent of the respondents felt that it was a good time to undertake such expenditures in the second quarter. Higher interest rates and weaker market demand seem to be the major factors behind the change of attitude in the second quarter of 1980.

Foreign direct investment in industrial countries

The importance of two-way direct investment between the major industrial countries has been emphasized in two recent studies, one by the Conference Board (Multinational Corporations and Developing Countries) and the other by the Federal Reserve Bank of New York (FRBNY) in its Quarterly Review. Not only are the industrial countries the main source of investment funds for other industrial countries, accounting for some 90 percent of the total in countries studied by FRBNY, but an increasing share of their foreign investment is directed towards each other. The Conference Board shows that between 1967 and 1975 developed countries' share of the total stock of foreign direct investment by developed countries increased from 69 percent to 74 percent.

As a result, foreign-controlled firms have become an increasingly important factor in the economies of many of the developed countries. Their importance is greater even than the book value of their investment would suggest because a high proportion of their investment is financed from sources other than the parent company. According to the FRBNY, foreign-controlled companies account for some 20 percent of total sales or output in Germany, France and the U.K. and about 5 percent in Japan and the United States. In Canada, where foreign investment has long played a major role, the proportion is about 60 percent. In all countries, the areas of greatest foreign influence are the high-technology industries, petroleum,

chemicals, rubber, transport equipment, electrical machinery and other engineering — industries in which multinational enterprises are able to achieve economies of scale in production and distribution.

The FRBNY notes that major industrialized countries are developing policies on foreign direct investment that are increasingly similar, though some differences remain. It points out that all countries restrict foreign investment to some extent and most "... seem to follow ... conflicting principles of encouraging investment in weak sectors ... or in industries where domestic investment is inadequate, while resisting increased foreign dominance of any important industry."

The FRBNY underlined the fact, however, that in spite of a growing similarity of policies a number of difficult problems remain to be solved, namely the "... harmonization of industrial subsidy programs as well as the regulatory treatment of multinational corporations." The FRBNY believes that effective and sustained cooperation between governments and international agencies will be needed to resolve such questions.

Deadline for regional development incentives extended

The requirement that projects assisted under the Regional Development Incentives Act must be in commercial operation by the end of 1981 has been changed and the deadline extended to December 31, 1984. This was the second time the program's deadline has been extended, the first being in 1975.

The extension, passed by an Act of Parliament on July 10, allows the Department of Regional Economic Expansion to continue offering incentives, primarily in the form of grants, to qualified manufacturing and processing firms for the establishment, expansion or modernization of plants in regions designated under the Act.

The extension also enables industry to continue to take advantage of the Department of Finance's Investment Tax Credit program, which complements the DREE program by providing higher benefits in designated regions.

Ontario introduces buy-back program

Last June, the Government of Ontario announced that it would help Canadians buy foreign-controlled branch plants that would otherwise be closed down or sold to foreign investors. This assistance will consist of up to \$500,000 in direct loans and \$1 million in loan guarantees which

will be provided to Canadian-owned or Canadian-controlled companies, Canadian investment groups or Canadian employee-management groups.

Applicants will be required to demonstrate that the target-firm is viable and that they are prepared to make a sizeable investment themselves, that is at least 10 percent of the purchase price. Employee-management groups will receive a high priority in this program. The funds will be made available through the Ontario Development Corporation, the Northern Ontario Development Corporation and the Eastern Ontario Development Corporation.

In announcing the program, the Government emphasized that it will be highly selective and that it will apply tough commercial standards to applications including market potential, long-term viability, technological competitiveness and management capabilities.

Nova Scotia helps small businesses

In late June the Government of Nova Scotia introduced two new programs which are designed to help small businesses in their export marketing efforts and in making their operations more efficient.

The first is the Market Agent Program, a one-year pilot project, which will provide 50 percent of the expenses of a marketing agent for groups of small businesses. The program will place the resources of a marketing agent at the disposal of companies with complementary products who have shown a commitment to strengthen their marketing efforts by banding together. It is hoped that this program will substantially boost exporting by firms which otherwise lack the resources to penetrate markets outside the province.

The second program, called the Consulting Assistance Program, will provide government financial assistance for sharing the costs of professional consultants hired by small businesses to diagnose operational problems, recommend solutions and help implement them in such areas as financial systems, marketing and management planning. For new enterprises, the program will cost-share the hiring of consultants to prepare an assessment of the viability of a business proposal or a business plan.

The program will fund up to 75 percent of the costs of the consulting services, to a maximum contribution of \$2,000. Assistance will be available to new and existing small firms engaged in goods producing, business services, construction and tourism related services.

Canada's forest products industry

by Jim Lyon

The forest industry has played a crucial role in shaping modern day Canada. It has been responsible for the creation of towns and ports, the generation of hundreds of thousands of jobs and, in part, for the high standard of living enjoyed by Canadians. It is a vigorous industry that is presently undergoing significant change.

The forest products industry is Canada's largest manufacturer and is the single most important contributor to the country's balance of payments. More than 10 percent of the labour force works in this industry, which manufactures such diverse products as newsprint, fine paper for books and a variety of business forms, packaging materials, paper bags, lumber for home construction, plywood, panel-board, railway ties and furniture.

Not only is the industry significant in its Canadian setting, it is among the world leaders in the production of many products. In fact, Canada is the world's leading producer of newsprint, is second only to the United States in the production of wood pulp and is a major producer of round wood. Canada is also a leading exporter, supplying the largest part of world trade in most forest products. For example, it accounts for about 70 percent of world exports of newsprint and about one-third of world pulp exports. This strong export performance contributed \$11.6 billion to Canada's balance of trade in 1979, including \$3.9 billion worth of lumber, \$138 million worth of plywood, \$3 billion worth of pulp, \$3.2 billion worth of newsprint and \$765 million for other grades of paper. Because of its proximity, the United States absorbs a very large part of these exports.

Background and structure of the industry

Forest resources played a vital role in the earliest commercial history of the country. At first less important than fish and furs, timber soon became the principal item of Canada's trade. Before 1700, quantities of tall pines for masts were already being exported to France, a trade diverted to Britain after 1763. But it was Napoleon's blockade of Baltic trade to Britain that led to the creation of a huge forest industry in the early years of the 19th century. Many of Canada's cities owe their beginnings to that industry which was soon supplying the largest part of Britain's timber needs. In a sense, trees provided much of the capital needed in Canada's first years of development. Subsequently, Americans also turned to Canadian sources as their own accessible supplies diminished, investing in mills that could supply lumber, pulp and paper to the growing U.S. market. And, as the United States expanded westward, so did the Canadian forest industry.

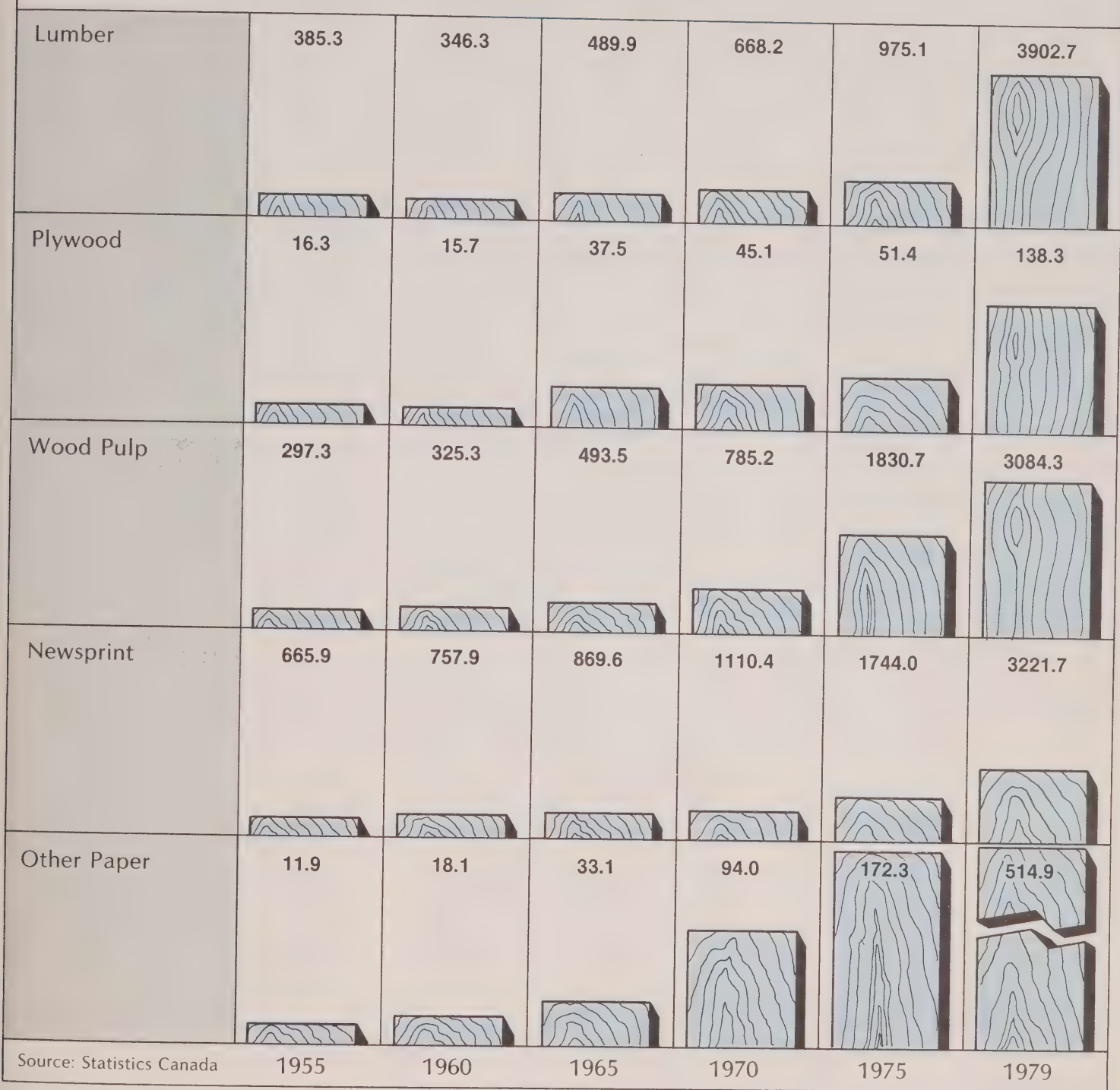
The industry, therefore, stretches right across the country. It is by far the most important industrial sector in British Columbia, accounting for about half of all manufacturing activity in the province, and is vitally important in the provinces of Quebec and New Brunswick. Significant forest industries can also be found in Ontario, Manitoba, Saskatchewan, Nova Scotia and Newfoundland. In many communities it is virtually the only employer. There are, however, some significant regional differences. Broadly speaking, the pulp and paper industry is strongest in Eastern Canada, where nearly 80 percent of its mills are located, whereas lumber and plywood production is more important in British Columbia, source of over two-thirds of Canada's softwood lumber and the bulk of its softwood plywood. In terms of the selling value of goods produced, Quebec is the leading producer, followed closely by British Columbia and Ontario.

A few companies in the Canadian industry are completely integrated: they log trees from their own forests; transport logs by their own trucks to their sawmills; "peel" the larger logs to manufacture plywood; saw lumber for housing; chip what fibre remains and turn it first into pulp and then newsprint or other paper products; and finally sell their products through their own distribution networks. Other companies are active in only some of these operations, the smaller firms typically specializing in logging or sawmilling operations. Virtually all companies, however, are dependent on others within the industry; pulp mills, for example, must often obtain a big portion of their wood chips from independent sawmills. One result of this interdependence is that newsprint production costs may rise as by-product wood chips become scarce during a lumber market downturn.

Challenges

Over the past 30 years, the growth of the Canadian industry has been quite remarkable. Pulpwood and sawn lumber production has nearly tripled, and newsprint production has doubled. Shipments of pulp, paper and paperboard have more than doubled in quantity, employment has risen by over 50 percent and the value of capital employed is more than 10 times what it was in 1950. Yet, in spite of that growth, Canada's share of the faster-growing world pulp and paper markets has

Forest Products Exports in millions of dollars



slipped. For instance, installed Canadian newsprint capacity, which in 1950 could supply 55 percent of the world's demand, could only supply 37.6 percent in 1979. For total wood pulp, Canada once had the capacity to supply 22.2 percent of world demand, but now can only supply 14.3 percent. Moreover, timber availability could constrain the Canadian industry's ability to increase capacity.

The problem is now being faced head on with the industry placing considerable emphasis on improved forest management and "close utilization", which is a policy of using every piece of wood fibre that can be handled at a profit rather than leaving it behind. Canada's trees are no longer considered by the industry as an infinite resource to be "mined" indiscriminately.

From the air Canada's forests give the illusion of being limitless and inexhaustible. Many areas, however, are facing serious timber shortages as the result of past practices. In the 18th and 19th centuries forests were often regarded as a menace, an impediment to progress. Trees were cut down and their roots laboriously torn from the ground to make way for agriculture and settlement. Canada's his-

tory books tell of big fires burning day and night in Eastern Canada as large stretches of inconvenient forests were eliminated. In British Columbia, at the start of this century, miners seeking gold started huge conflagrations to facilitate access to their mines. Loggers took what was most accessible and most valuable, often without regard to reforestation.

Today, most of the first-growth forest in British Columbia, including the giant Douglas firs, western Red Cedar and hemlock that grew for many centuries, has been logged. As a result, the industry must retool and redesign its mills to handle smaller trees, which are often located high on remote mountains. So remote are some of these forest resources that a few companies have resorted to helicopter logging, particularly in areas where road building would be impossible or prohibitively expensive, and experiments are now underway with balloons to remove timber from the forests.

A number of sobering reports, both by government and industry, have stressed the need for significant new investment in forest management. A joint government-industry survey indicated that there was considerable scope for extending timber supplies through better utilization, improved access to remote areas and more intensive management practices.

Ownership of the forest resource rests mainly with the provincial governments, who are now making a determined attack on the problems of forest management. In British Columbia alone, the provincial government plans to see \$1.4 billion spent over the next five years in order to improve silviculture and ensure more tree planting.

Foreign control

Although foreign capital contributed to the development of the industry in Canada, Canadian control has always been significant and, for some time, dominant in the industry's manufacturing capacity. According to the Canadian Pulp and Paper Association, 63 percent of the pulp and paper industry's manufacturing capacity is

controlled by Canadians, 30 percent by Americans and 7 percent by other interests. Nevertheless, there are some large foreign-controlled companies, including the Canadian International Paper Company, Crown Zellerbach Canada Ltd. and Ontario Paper Co., which are American-controlled, and Reed Paper Ltd., which is controlled in Britain. A royal commission report to the Government of British Columbia in 1976 indicated that 29 major companies in that province had majority foreign ownership, 26 of which held significant timber rights. It also pointed out that companies with majority foreign ownership held 29 percent of the sawmilling capacity, 37 percent of pulp capacity and 43 percent of veneer and plywood capacity, but only 18 percent of paper capacity.

Outlook

Most forest industry leaders are optimistic. They expect that demand for wood fibre will be intense in this decade and beyond, barring any cataclysmic barriers to economic growth. Apart from the availability of timber, the only constraining factor the Canadian industry will face is its own production costs relative to those of its competitors. For despite its strength, the Canadian industry faces strong competition from foreign producers, notably in the southern pine belt of the United States and in the fast-developing areas of South America, particularly Brazil. On the other hand, it now appears that the Soviet Union will provide less competition than previously thought, and Scandinavian countries, traditional competitors, face serious timber shortages.

The relative weakness of the Canadian dollar over the past three years (about 85 cents U.S.) has given Canadian producers a sharp competitive edge. Other steps are being taken, however, to reduce industry costs and improve competitiveness. One of these is the reduction of energy costs. The forest industry is recognized as the largest energy consumer of all Canada's industrial sectors; in British Columbia, it is estimated to consume about a third of all

the energy purchased. A 1977 survey showed that energy represented roughly 2 percent of the cost of lumber production in that province. About 6.5 percent of the cost of a ton of market pulp was attributable to energy and 10 percent of newsprint manufacturing costs. For many years the industry has been burning "hog fuel" (bark, sawdust and wood debris) to generate steam power for its boilers. With the increasing cost of energy this effort is being intensified, although there are limits to the use of wood waste since it is bulky and expensive to transport.

In 1976, the pulp and paper industry, whose 130 mills across the country are by far the biggest energy consumers in the forest products sector, made a commitment to reduce by 1980 its use of purchased energy by 12 percent from 1972 levels. That target was achieved well ahead of schedule and further reductions are planned.

After years of inadequate returns, healthy cash flows in 1978 and 1979 enabled companies in the forest industry to undertake much-needed capital spending programs to modernize aging facilities, up-grade machines and conserve energy. As much as \$1 billion a year will be spent during the next several years to complete projects already started or recently announced. These projects involve every province, but are particularly notable in British Columbia and Ontario. The largest of them are in the pulp and paper sector, where production has been at capacity, but they also include substantial sawmill expansions and improved logging operations.

Although Canadian sales of lumber, pulp and standard newsprint to most major world markets have been duty-free for many years, other products such as particleboard, waferboard, softwood plywood, linerboard and certain grades of groundwood specialty papers have been subject to tariffs. As a result of the 1979 multilateral trade negotiations and related agreements, tariffs on these products traded between Canada and other nations will be reduced over time. Canadian companies expect to benefit from the elimination of U.S. tariffs on groundwood printing papers and the reduction from 10 percent to 4 percent of the U.S. tariff on waferboard over an eight-year period. However, they expect increased competition in the domestic market as the result of reduced Canadian tariffs on products such as fine paper, paperboard and particleboard.

The United Nations Food and Agriculture Organization forecasts annual growth of 4.3 percent in pulp and paperboard consumption and a 1 to 2 percent increase for lumber and wood-based panels. While not everyone accepts these figures uncritically, the industry generally sees the balance of the 20th century as presenting great opportunities for increased employment, higher output and export earnings.

Major foreign-owned corporations in the forest products industry

Company	Sales	Assets	Country of control
	(\$ millions)		
Canadian International Paper Co	1,000	n.a.	USA
Crown Zellerbach Canada Limited	614	451	USA
Ontario Paper Company	350	n.a.	USA
Scott Paper Ltd.	141	95	USA
Crestbrook Forest Industries Ltd	110	98	Japan
Reed Paper Ltd	307	359	UK

German investment in Canada

by Gorse Howarth

German business is involved in every sector of the Canadian economy from mining in the high Arctic to manufacturing in southern Ontario. The increasing number of German business missions, the growing flow of German tourists into Canada and the appearance in Germany of articles about Canada and investment in this country are all signs which point to an even stronger German participation in the Canadian economy.

The recent growth of West German investment in Canada and all the attention given to it tend to make us forget that West Germans have been investing here for many years. In fact, many well-known German companies, including BASF, Bayer, Kuhne & Nagel, Mannesmann and Volkswagen incorporated Canadian subsidiaries in the 1950's. Between 1952 and 1979 businesses from West Germany have invested well over DM 4 billion in Canada. This figure, provided by the federal Department of Economics of West Germany, makes Canada the sixth most important recipient of West German investment in the world. Moreover, that German presence in Canada's economy is expected to grow at an accelerating rate because of factors identified by a high-level German business mission to Canada in September 1979. The group pointed out several reasons for investing in Canada as an operating base for North America, including: its proximity to the huge U.S. market, an abundance of relatively cheap energy, reasonable labour costs and political stability.

Interest in Canada's resources could be another factor leading to higher levels of investment. In the past, German investment in resource exploration and development has led to some interesting and, at times, dramatic ventures. One of the more interesting phenomena in recent years was the rush by West Germans to invest in drilling funds in the Canadian oil and gas industry. Since 1974, West Germans are said to have bought over \$700 million worth of these tax-induced offerings. Germans have also taken an equity interest in oil and gas exploration companies and in ventures related to other energy resources such as uranium and coal. One such venture, in which Uranerz Exploration and Mining Ltd. has a one-third interest, is expected to be producing uranium from deposits at Key Lake, Saskatchewan in the next few years.

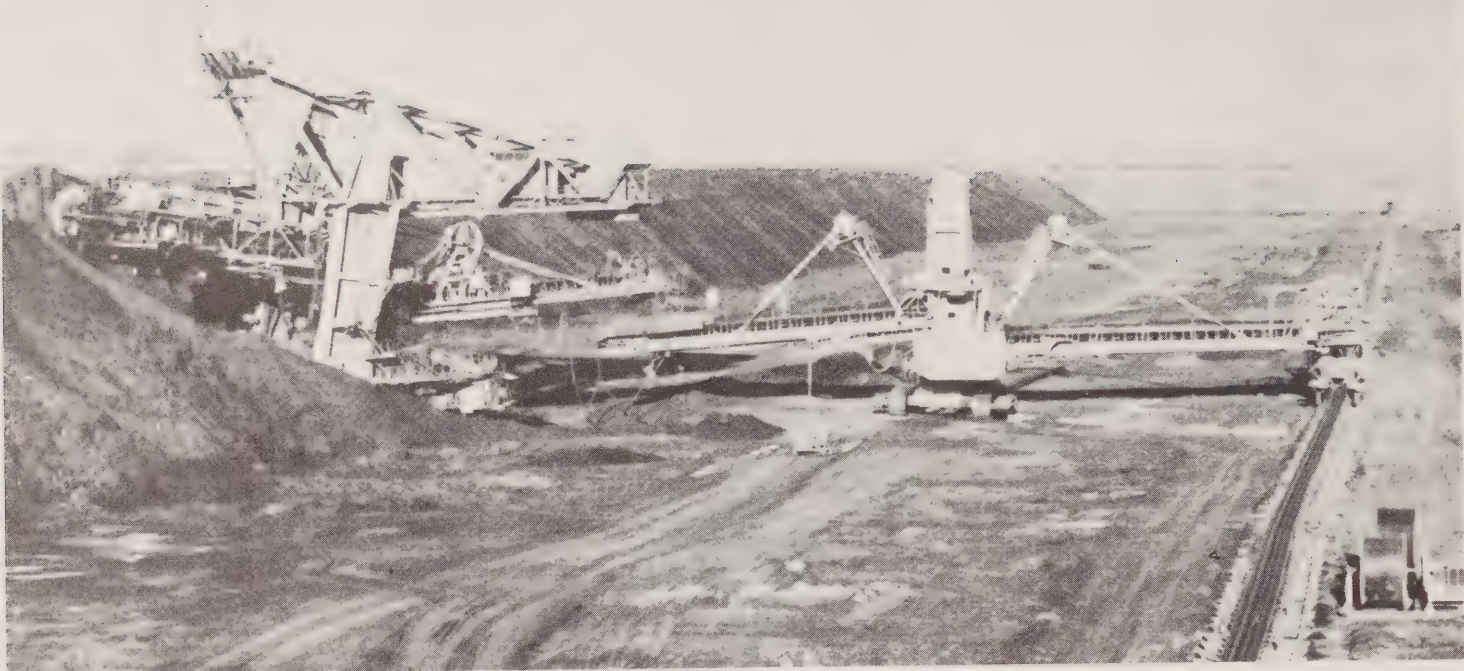
In addition, Germans have made sizeable investments in metal mining. One of the more dramatic of these is Nanisivik Mines Ltd., a new zinc-lead mine high in the Canadian Arctic, at the northern tip of Baffin island. The large German corporation Metallgesellschaft is an important participant in this, the world's most

northerly metal mine. Further south, the same corporation has considerable interests in other mineral exploration and development projects including oil and gas and uranium.

While much attention and publicity have been given to German resource investment, there is an impressive list of well-known German firms which have invested in manufacturing. One thinks of O&K Orenstein & Koppel, GWS Krupp Industries, BASF, August-Thyssen-Hütte, Siemens, Bayer, Klockner-Humboldt-Deutz, Klockner-Moeller, Demag and many others. German investments have introduced new technology, have resulted in increased exports and import replacement, have boosted research and development, as well as creating jobs involving both plant and managerial skills. An interesting example of West German manufacturing investment is provided by Deutsche Babcock Beteiligungs of Aberhausen. In 1978, it entered a joint venture with A.K. Velan of Montreal whose firm was producing a wide range of high pressure valves and steam traps for use in marine, fossil and nuclear power installations, petrochemical and other industries. The transaction provided Deutsche Babcock a manufacturing base and an established market in North America and Velan Engineering gained improved access to international markets, opportunities for joint ventures and participation in major turnkey projects and the financial strength of a very large and successful multinational corporation.

Deutsche Canada Grundbesitz, Wilh. Werhahn Canada, Schenker and Allianz Versicherungs-Aktiengesellschaft are just a few of the many German investors in Canada's service sector. By far the greatest object of West German investment in this sector has been real estate, particularly major urban and industrial properties. By no means, however, is it limited to real estate. There have also been a considerable number of investments in the wholesale and retail trade. In addition, there has been some German investment in finance. For example, the giant Deutsche Genossenschaftsbank of Frankfurt is a shareholder of one of Canada's newest chartered banks, the Northland Bank. Not to be forgotten is German investment related to recreation and tourism. The underlying

Mr. Howarth is Commissioner of the Foreign Investment Review Agency. The article first appeared in "Salute to the Federal Republic of Germany", which was a special magazine published in September by the Canadian-German Chamber of Industry and Commerce Inc. on the occasion of an exhibition in Toronto on German investment which the Chamber organized.



German investment may go increasingly West in pursuit of opportunities related to huge energy-related projects.

reason for this more recent category of investment is that, with the exception of Great Britain, West Germany is now Canada's most important source of tourist revenue from overseas. In 1979 alone, approximately 235,000 West Germans visited Canada, particularly British Columbia, Alberta and Ontario.

Hegel, the German philosopher, once argued that what "... experience and history teach is ... that people and governments have never learned anything from history or acted on principles deduced from it." This, however, has not been the case with Canada's policy on foreign investment. Experience and history have taught Canada that foreign investment can be beneficial to a country's development and prosperity only inasmuch as that country takes the steps necessary to make it so. That is precisely why the Foreign Investment Review Agency was created. By reviewing foreign investment proposals according to an open set of economic criteria, the Government can ensure, on a just and equitable basis, that foreign investment will be beneficial to Canada as well as to foreign investors.

German business, through its investment, has long distinguished itself by its contribution to the Canadian economy in the form of its world-renowned technological expertise, its managerial and entrepreneurial excellence and its proven willingness to join Canadians in resource and industrial ventures. These outstanding qualities no doubt account in great part for the high rate of allowance of German investment proposals under the Foreign Investment Review Act. Since the Act came into effect, 90 percent of all West

German proposals have been allowed. In fact, of the 168 proposals from West Germany that were resolved between April 1974 and June 20, 1980, only 7 have been disallowed and, of these, 3 were subsequently re-submitted and allowed. These investment proposals, which include both acquisitions and new businesses, refer only to investments involving control of the enterprise and do not cover portfolio investments.

The total value of the investments allowed during this period was approximately \$875 million, making Germany the third largest investor after the United States and Britain.

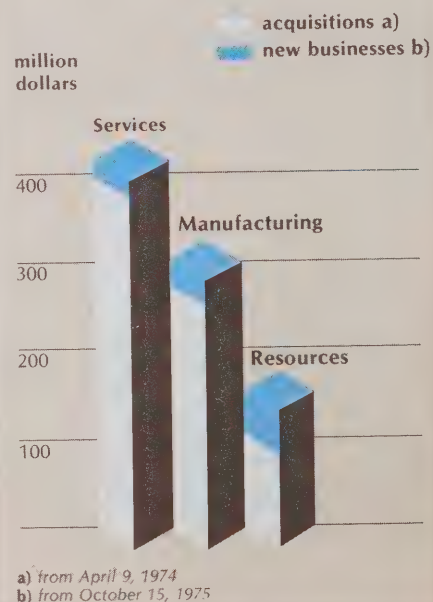
Although a slight majority of those applications were for the establishment of new businesses, the smaller number of acquisition proposals accounted for fully 85 percent of the total assets involved. Almost half of the total investment was in the service sector, mainly in wholesale and retail trade and in finance, insurance and real estate. A further 30 percent was in manufacturing industries, of which machinery and metal fabricating were the most important. Only 17 percent of the total concerned the primary (resource) sector although this sector actually attracted the largest proportion of proposed investment in new businesses.

FIRA statistics show that most German investments are directed to three provinces, namely Ontario, Alberta and Quebec. While Ontario was the location for most acquisitions (69 percent of the assets involved), Alberta was the chief beneficiary of new business investment (40 percent), and particularly of new mining enterprise. This latter development,

together with the evidence of strong portfolio investment in Western resources, has undoubtedly encouraged recent speculation that German investment may go increasingly to the West in pursuit of opportunities created by the vast energy-related potential there.

Whether or not it moves in that direction, further large increases in the stock of German capital will likely occur as Canada continues to welcome investments that are of benefit to this country as well as the investor.

Value of allowed German investments to June 20, 1980



Ontario's economy: strength through diversification

by Elaine Wyatt

The huge energy projects in Western Canada and all the attention surrounding them have tended to take Ontario out of the country's economic limelight. And yet, when one looks closely at that province, one finds an economy which is highly sophisticated and fundamentally sound and, which holds the promise of considerable growth over the next decade.

It is hard not to be impressed by Ontario. In 1978 it accounted for over 38 percent of the country's labour force, 36 percent of national retail sales, 44 percent of the export trade and about 40 percent of personal income. In that same year, the province had a 41-percent share of Canada's real domestic product. More than one-third of Canada's population lives in Ontario, which covers approximately 11 percent of the country's land mass.

Ontario's economy performed well throughout the turbulent 1970s, the great strength and diversity of its industry allowing it to thrive in spite of such shocks as the oil-price increases and the more recent problems of the automobile industry. While world economic conditions deteriorated during that decade, the province's economy continued to grow at an impressive pace. Employment in Ontario grew at an average annual rate of three percent. In 1979 alone, 161,000 jobs were created in the private sector, an increase of over 4 percent. In spite of combined inflationary and recessionary pressures, the province's real output grew at an average rate of 3.7 percent annually. This performance outpaced that of West Germany, the United States, the U.K., indeed that of all OECD countries. In particular, Ontario's annual employment record outstripped that of both Japan (0.1 percent) and West Germany (-2.1 percent), countries often cited as having fared the best in recent years. This strong growth is all the more impressive when one takes into account the fact that the appreciation of the yen and the mark effectively softened the potential impact on Japan and West Germany of the rise in oil prices (in U.S. dollars) at a time when the Canadian dollar was losing some ground to the U.S. dollar.

Resources, manufacturing and services are all fully developed sectors in Ontario; mining and forestry are particularly strong in the North; manufacturing in the South; and services (public sector) in the East. As time passes, however, the traditional regional economic lines are becoming increasingly blurred because Eastern Ontario is the locus of a veritable explosion of high-technology industries and government policy is encouraging the development of secondary industry closer to resources in

the North. Furthermore, Southern Ontario has always been the center for financial and other services and is one of the richest agricultural areas of Canada.

Ontario is endowed with immense natural resources, including 15 basic minerals such as copper, iron ore, zinc, silver, gold and platinum. The province has half the world's supply of nickel and the largest supply of uranium in the Western World. Total value of mineral production in 1978 is estimated at \$2 billion, making it the second largest provincial mineral producer in Canada. Additionally, Ontario is the largest producer of structural materials such as cement, lime, clay products, sand and gravel.

Ontario's forest resources, the third largest in Canada, cover 570,000 square kilometres of land, largely in Northern Ontario and to a lesser extent in Eastern Ontario. Although the resource already supports a substantial wood products industry, there remains considerable potential for further exploitation. Ontario accounted for only 14.7 percent of Canada's production in 1977 while it had 21.1 percent of the productive, economically accessible and inventoried forests. And there's room for expansion. Furthermore, experiments with fast growing, hybrid tree farming in Eastern Ontario may help to alleviate concern about forest regeneration.

When one thinks of Canadian agriculture, the usual tendency is to think of the Prairies with their huge grain production and immense ranches. But for a great number of commodities, Ontario is the largest producer in Canada. Ontario farmers grow almost half the fruit and two-thirds of the vegetables produced in Canada. They produce almost twice as many eggs and finish more beef for market than farmers from any other province. The province is the largest producer of fluid milk and poultry and the second largest producer of hogs. And, a good combination of soil and climate supports a wide variety of special crops such as winter wheat, tender fruits, tobacco and grapes. Furthermore, over half of all the food processed in Canada is processed in Ontario.

Characteristic of a well-developed, self-sustained economy, Ontario has a strong service sector, which offers specialized

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services and skills not available elsewhere in Canada as well as a large pool of capital necessary for major projects. The province is home for over 42 percent of Canadians employed in finance, insurance and real estate, and Toronto, Ontario's capital, is the financial heart of the country. One finds in that city the head offices or marketing divisions of Canada's 11 chartered banks, whose combined assets are valued at more than U.S. \$200 billion. In addition, it is the home of the head offices of 80 percent of Canada's national corporations and, the Toronto Stock Exchange is by far the largest share-trading center in the country.

Though activity is intense in Ontario's resource and service sectors, it is manufacturing which has made the province's reputation. Two facts serve to illustrate this point: Ontario accounts for half of Canada's manufacturing shipments and 80 percent of the country's exports of fully manufactured products.

The leading manufacturing industry in Ontario is transportation equipment, in particular the automotive industry which accounts for one in every six manufacturing jobs in the province. Recently, however, the automotive industry has faced a dramatically changed world environment, which has caused serious adjustment problems and has resulted in the lay-off of more than 20,000 workers.

Ontario's automotive industry is very much a part of the North American industry and has, therefore, pursued a policy of gradual product differentiation to serve a distinctly North American market. Europe and Asia have been served by substantially different products. Consequently, the world was until recently divided into three major markets. With the gradual elimination of the distinguishing features of those markets and the dramatic rise in fuel costs, which has led the North American consumer to demand the kind of car produced in Europe and Japan, an integrated world market has emerged and is challenging North America's and, therefore, Ontario's automotive industry.

At first glance these new developments might be seen as a threat to the industry, but many observers see them as a great opportunity for growth. This optimism is explained by the fact that, though the "world car" is smaller and requires fewer components than the traditional North American model, it requires higher technological content and the kinds of material that Ontario can and does produce. In particular, more plastic, aluminum, magnesium and high-technology electronic parts will be needed to replace the usual grey iron and zinc castings, steel components and power options. Ontario's plastics industry has one of the world's best and most secure supplies of feedstocks. The province's aluminum industry can count on relatively cheap and secure supplies of electricity.

Provincial government assistance to the

automotive industry has taken the form of an Autoparts Technical Centre, attached to the Ontario Research Foundation, and grants from the province's Employment Development Fund. The technical centre provides technical information, industrial engineering services, access to materials testing facilities and training programs. Provincial government grants have supported \$71 million worth of expansions in the industry. The Government has also sought to help the industry by calling for modifications of the 1965 Auto Pact with the United States in order to rectify certain inadequacies and problems identified in recent years.

Transportation equipment, however, is just one of many strong manufacturing industries in Ontario. Traditional resource-based industries as well as more sophisticated types of manufacturing such as electronics, electrical products, machinery, chemicals and aerospace products give the provincial economy the depth and breadth necessary to absorb the kinds of cyclical or transitional shocks created by problems in certain industries such as the automotive industry. Highly developed inter-industry links enhance the province's potential for growth as well as provide a solid economic balance.

Ontario is experiencing the kind of technological evolution that other complex industrialized economies are experiencing, an evolution which promises to lead to unparallelled social and economic change. Microelectronics is being applied to computer-assisted design and manufacture in industries such as footwear and tool and die, and industrial robots are being used by General Motors of Canada for spot welding.

Though these are interesting developments, the most exciting news is coming from Canada's capital, Ottawa, in Eastern Ontario. Gradually, the city's longstanding reputation of being nothing more than a government town is becoming an anachronism as a community of highly innovative and young entrepreneurs push their way into the world of high technology with products and ideas that even the giants of their field cannot resist. Though Ontario's electronics industry is characterized by a diversity of small companies, many of which have annual sales of less than \$1 million, Ottawa's 80 high-technology companies already employ 15,000 people, have a payroll of \$200 million and estimated revenues of \$500 million. One such firm, Mitel Corporation, has had an astonishing brief history. Producing semiconductors and telecommunications equipment, this miniature multinational has eight plants around the world and has grown by 100 percent each year since 1975, when its sales totalled only \$12,000. Some have predicted that its sales will reach \$100 million this year.

A number of other Ottawa firms are doing well. In the very competitive field of word processing, one finds AES, with sales of \$125 million in 1979, and Candalf Data Communications Ltd., with sales in the \$20-million range. Another notable example is Linear Technology Inc., which designs and manufactures specialized silicon chips for hearing aids and exports 90 percent of its production. Others are Lumonics Research Ltd., an \$8 million-a-year laser producer, and Epitek Electronics Ltd., whose development of thick film hybrids has turned it into a \$3-million business.



Industrial robots, such as the one above in a General Motors of Canada truck plant, are just one example of the new technology being used in Ontario's industry.

Companies such as Northern Telecom and Bell Northern have set world standards for telecommunications equipment and systems. The announcement earlier this year that Northern Telecom's TELIDON system, a communications system that links central computers to home television sets, was chosen over competing European systems for a major U.S. field trial, represents a major breakthrough for Canadian videotext technology.

It was also in Ontario that significant achievements were made in satellite communications, in fibre optic technology, in space control systems (Spar Aerospace Ltd. developed a retractable arm for the U.S. NASA space shuttle) and in two-way interactive communications systems.

Still in manufacturing, industries such as metal fabricating and primary metal production have been expanding. Ontario's steel industry, which has become highly competitive and technically advanced, has been successfully competing with U.S. and Japanese producers in the U.S. market. Furthermore, the recent growth of two of its leading companies, Dofasco and Stelco, is expected to spark the development of some related heavy industries.

Recent additions to Southwestern Ontario's chemical industry will boost prospects for the plastics industry. Shell Canada Ltd. has recently completed a \$230-million polypropylene and isopropyl plant, Imperial Oil Ltd.'s \$100-million polyethylene plant will come on stream in 1982, and Union Carbide Canada Ltd. has also recently completed a \$170-million plant.

All this manufacturing activity tends to make one forget Ontario's second largest single industry, tourism. Supported by a thriving food and beverage industry, tourism employs more than 200,000 people and generates over \$5 billion a year in revenues. In 1979 alone, Ontario received nearly 21 million tourists from the United States who spent over \$900 million during their visit. The industry seems destined for further growth as the number of overseas tourists has increased steadily in recent years.

Ontario's prospects

The 1980s promise to be a decade of sweeping change, thus of pain and opportunity. Ontario will share with other industrialized economies a number of short-term problems such as slow growth rates for the economy as a whole and for productivity and capital accumulation in particular, as well as persistent inflation and underutilization of resources. Though these international factors tend to cloud the horizon, a number of domestic factors have made Ontario watchers enthusiastic, if not sanguine, about the province's economic future.

The recent round of multilateral trade negotiations (GATT) is expected to improve the access of Ontario products to



Continued record activity at the Toronto Stock Exchange is a clear sign of investor confidence.

the U.S. market. In fact, 90 percent of Canada's exports will enter the United States with no more than a 5 percent tariff and 80 percent will enter tariff-free. In addition, it is expected that the current favourable exchange value of the Canadian dollar (U.S. \$.85) will remain in the 85 to 90 cent range for the foreseeable future, thus ensuring that Ontario products retain that extra competitive edge both at home and abroad.

Certain investment indicators are encouraging. Activity at the Toronto Stock Exchange continues to reach record levels, a sign of investor confidence. Manufacturing activity will be stimulated by the approximately \$200 billion worth of energy projects slated for the next 20 years, including pipelines, tar sands, heavy-oil upgrader plants and major coal developments. A number of significant mining projects as well as the upgrading of Canada's grain transportation system will also stimulate the economy. Not to be forgotten is business investment in plant and equipment which is expected to be very strong in 1980. In current dollars, business investment will total nearly \$13 billion in Ontario this year, which is nearly 16 percent higher than in 1979. Large manufacturing firms are expected to increase their investment spending in real terms by 29 percent. Moreover, though personal savings are still high, lower interest rates could lead to significantly greater consumer spending.

Certain production factors, in particular labour, are giving rise to optimism. For example, U.S. Department of Labor figures show that Ontario's output per hour in 1978 increased by 4.2 percent, which, with the exception of Japan (8.3 percent) and France (4.9 percent), was considerably

better than that of Germany (3.7 percent), Italy (2.9 percent), the United States (2.5 percent), and the United Kingdom (1.6 percent). Also in 1978 and on a U.S. dollar basis, Ontario's unit labour costs decreased by 4.3 percent, whereas they increased in Japan and the United Kingdom (26 percent), France, Italy and West Germany (15 to 20 percent) and the United States (7 percent). Furthermore, though Ontario's work force is expected to increase annually at a rate of only 1.9 percent in the 1980s compared to 3.3 percent in the 1970s, the most productive and entrepreneurial age group (25 to 54 years) is expected to experience dramatic increases during this decade.

In addition to the above factors, which are subject to change, one must keep in mind longstanding features of Ontario which have played and will continue to play major roles in the province's economic development. Ontario's strategic location in North America gives it access to 300 million consumers, 120 million of whom are within a single day's trucking from Toronto. The province's industrial core around Lake Ontario and Lake Erie is served by 6 deep-water ports, which are part of the St. Lawrence Seaway connecting mid-North America with the Atlantic Ocean. Furthermore, abundant fresh water, an excellent network of roads, and modern air and rail facilities are all trump cards in Ontario's industrial future. One factor that could become the greatest advantage of all is energy. The province has abundant and secure supplies of relatively cheap hydrocarbons and, thanks to nuclear energy and water power, the province currently has a 20-percent surplus electricity generation capacity with more facilities under construction.

Tidal power: the new wave in electricity generation

The historical scarcity and escalating costs of hydrocarbons used for the generation of electricity in the Maritime provinces have made that region acutely aware of the need for alternative sources of energy. The most interesting and exciting of these is tidal power, which, according to some estimates, could produce billions of kilowatt-hours a year. Exploiting this renewable source of energy in the Bay of Fundy could help alleviate the increasingly burdensome cost of the region's dependence on imported oil for the generation of electricity.

The concept is simple and straightforward: it is a matter of using the powerful movement of the Bay of Fundy's tides to turn turbines which generate electricity. The principle is the same as the one involved in the lumber and flour mills of old, the exception being that tides and not river currents turn the wheels. Why, then, has this energy source not been developed earlier?

The answer is economics. Tidal power has been debated, discussed and studied for several decades and its technical feasibility has been widely accepted for a very long time. However, as late as the 1960s, most analysts discounted it as being uneconomic in an age of cheap hydrocarbons. Nevertheless, there were some dissenting voices. In its October 1969 report, the Atlantic Tidal Power Programming Board suggested that changes might very well occur in the economic assumptions used in evaluating tidal power. In fact, the Board recommended more studies in the event of significant changes in interest rates, construction costs, conventional energy prices, or possible exhaustion of conventional supplies. Needless to say that the Board's foresight proved to be very accurate. It was thus the steep climb of the price of hydrocarbons, in particular imported oil on which the Maritime provinces are heavily dependent for the generation of electricity, which made tidal power economically desirable as well as technically feasible.

Within three years of the 1969 report, energy price and supply patterns were such that the Governments of Canada, Nova Scotia and New Brunswick agreed to create the Bay of Fundy Tidal Power Review Board, which was instrumental in laying the technical and economic groundwork necessary for the current tidal power project.

The Annapolis River project

Though the principle involved is quite simple, its application requires sophisticated technology. Making use of a barge built across the Annapolis River in the 1960s, the Tidal Power Corporation, a Nova Scotia provincial Crown corporation, will construct a generating station which is designed to assess the suitability of a prototype turbine for the development of major tidal projects in the upper reaches of the Bay of Fundy, where tides of about 11 to 14 metres are common. Also to be assessed is the turbine's suitability for low-head river hydro potential elsewhere in Canada. The station will have an immediately practical as well as an experimental vocation, generating 50 million kilowatt-hours of electricity to replace an equivalent amount currently generated mainly from imported oil.

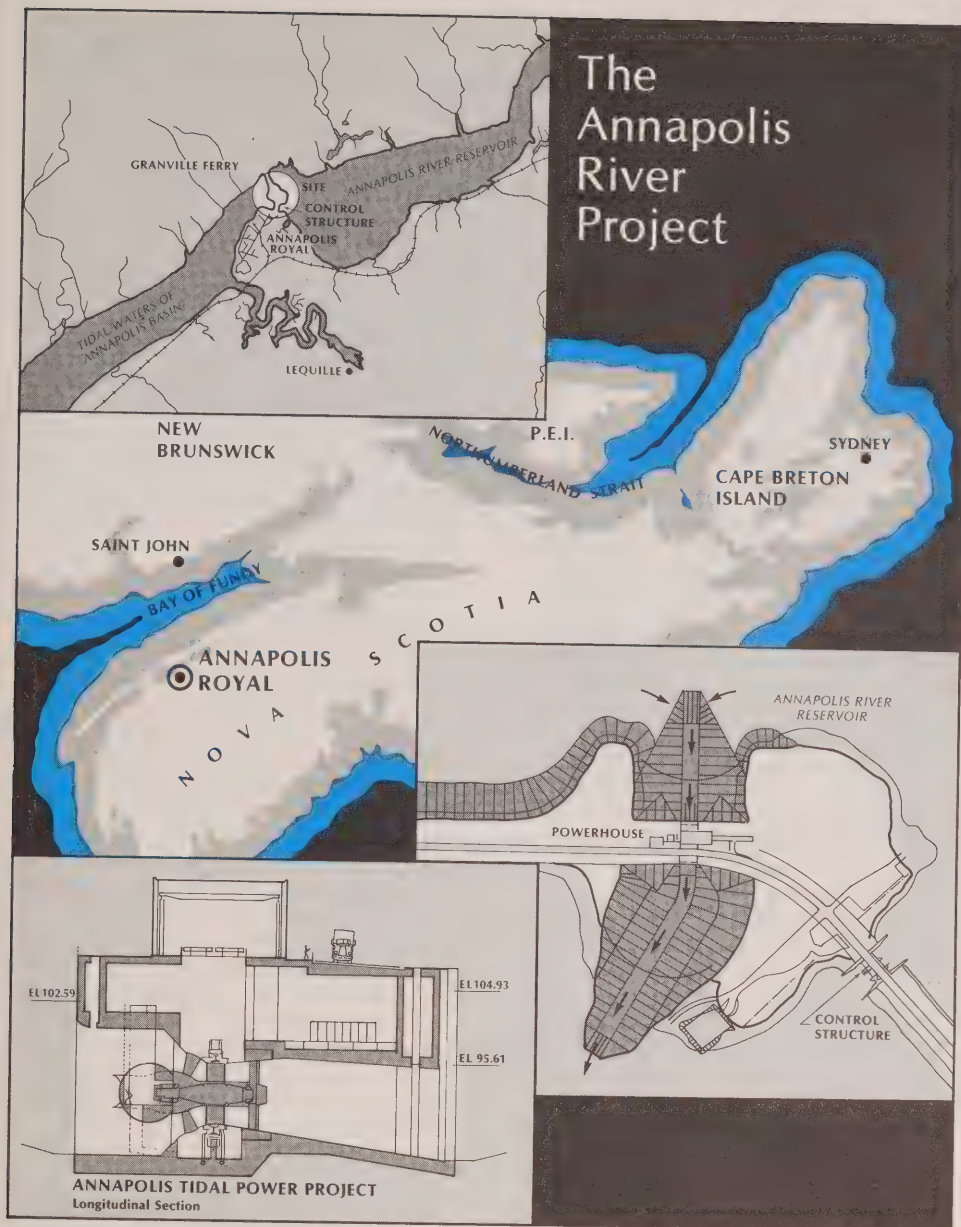
The \$46-million project involves the construction of an underground powerhouse, connecting canals, modification of existing sluices and construction of a transmission line between the powerhouse and an existing substation.

The centerpiece of the project, however, is the straight-flow turbine developed by Escher Wyss of Switzerland for its Staflo unit. In this system, the turbine wheel (runner) turns on a horizontal shaft and operates with a straight flow of water through the sluices (water passages). It is suitable for "run-of-the-river" and tidal applications using low water heads (below 40 metres). Though Escher Wyss has installed a number of Staflo units in Europe, the unit it will build and install in the Annapolis project will be the largest in the world and, if successful, would represent a significant technical breakthrough in the field of hydraulic turbine engineering.

In addition to monitoring the performance of the turbo-generator unit, the project will assess environmental effects,

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The Annapolis River Project



Approval of the Swiss investment proposal

The large turbine, which is a central feature of the Annapolis River project, will incorporate a design developed by Escher Wyss Ltd., which is a subsidiary of Sulzer Brothers Limited of Winterthur (Switzerland). The Swiss multinational designs and manufactures a wide variety of heavy engineered products such as industrial heating and air conditioning systems, textile machines, industrial pumps, steam generators and, of course, water and pump turbines.

In anticipation of the Annapolis River project, Sulzer Brothers Limited submitted an application to the Foreign Investment Review Agency for the establishment of a joint-venture company with Dominion Bridge Company Limited, a Canadian public company which designs and manufactures industrial products such as material handling equipment, structural steel erection machine tools and hydraulic excavators. The object of the joint-venture acquisition was Dominion Bridge's machine operations in Lachine (Quebec). Sulzer Brothers proposed to acquire 49 percent of the voting shares in the joint venture, Dominion Bridge owning the rest. The joint venture, to be known as DB-Sulzer Inc., was to become a member of the Escher Wyss hydraulic engineering group in which it would be the specialist on large Straflo-type turbines. The proposal was approved by the Government in January 1980.

in particular drainage and salt water intrusion into the valuable agricultural lands surrounding the basin. The project will be equipped for remote control operation and will be connected to the Nova Scotia Power Corporation's system. Construction is scheduled to be completed by the Spring of 1983.

Beyond the Annapolis River project

The Annapolis pilot project is a test run for the multi-billion dollar development of the Bay of Fundy's Cumberland Basin, which is located between the provinces of Nova Scotia and New Brunswick. In fact, the Cumberland Basin is only one of three sites found to be viable for tidal power development, the others being Cobequid Bay (Nova Scotia) and Shepody Bay (New Brunswick).

The Cumberland Basin was chosen as the site for the first major development

principally because it is the smallest of the three sites, making it possible to minimize both technical and financial requirements. Another reason was that both Nova Scotia and New Brunswick could benefit from its development because the two provinces share the basin. Moreover, though it is the smallest of the three sites, the basin is large enough to provide a substantial contribution to the energy requirements of the Maritime region. Environmental and other cost considerations also played in its favor.

In its 1977 reassessment of the Fundy tidal power concept, the Bay of Fundy Tidal Power Review Board made an extensive and convincing case for undertaking the project. It pointed out that the exploitation of this indigenous renewable resource will reduce the need for imported oil and, consequently, result in significant foreign exchange savings. The cost stability throughout the long plant life (75 years) will be a decided advantage over the cost

volatility associated with continued dependence on imported oil, and it is expected that system generation costs in the Maritimes would be significantly lower with tidal power. It is a clean form of energy and its development would place Canada in the forefront of this kind of technology, creating opportunities for related industrial development and application of the technology to other forms of electricity generation.

If successful, the Bay of Fundy tidal power development will probably rate as one of the most exciting and ingenious engineering feats of the next few decades. It will be an operating model for other countries to study. Though tidal power is by no means a complete solution to the fuel problems associated with the generation of electricity, it should prove to be an invaluable tool for coping with the growing scarcity and ever-increasing costs of fossil fuels.

Foreign investment in the service sector

by Frank Swedlove

In its review of acquisition and new-business cases over the past six years, the Foreign Investment Review Agency has been in a unique position to observe the degree of and identify reasons for new foreign investment in the service sector. This article draws on this experience and on other sources of information to provide an insight into foreign investment activity in that sector.

The service sector has been the least studied and most misunderstood sector in the economy. The tone was set long ago in Adam Smith's *Wealth of Nations* where he stated that "The sovereign . . . with all the officers both of justice and war who serve him, the whole army and navy are unproductive laborers; also — churchmen, lawyers, physicians, men of letters of all kinds: players, buffoons, musicians, opera singers, opera dancers, etc. . . . the work of all of them perishes in the very instant of its production." While most economists no longer share Smith's bias against services, many still hesitate to deal with that sector because it does not lend itself easily to measurement by traditional economic gauges such as production or output.

The first obstacle to overcome in any discussion of the service sector is its very definition. For the purposes of this article, all industries which are not included traditionally in the primary sector or do not involve the manufacturing or processing of goods are included in the service sector, namely: construction, transportation, communications and other utilities; wholesale and retail trade; finance, insurance and real estate; and community, business and personal service industries. Though state-owned corporations in these industries are included, public administration and defence are not.

The high barriers that inhibit entry into other sectors, notably mining and manufacturing, do not exist in the service sector because little commitment is required, generally, in machinery and equipment so that quick entries into and exits from most service businesses are possible. In fact, the only real constraint for most investors in the service sector is the limit of their own capabilities and imagination. Fast-food restaurants, day-care centres and the adaptation of computer program and consulting services to a wide variety of businesses are all examples of how quickly service-sector investments can take root and of how innovative such investments can be.

Level of foreign control

Compared with the rest of Canadian industry, foreign control in the service sector is not large. In 1977, the last year for which data are available under the Corporations and Labour Unions Returns Act (CALURA), only 13 percent of assets in this sector were foreign-controlled. Although the CALURA data exclude financial industries, which in terms of assets

are the most important part of the service sector, that percentage would still seem to be reasonably accurate for the sector as a whole since foreign control in the financial industries has been separately estimated at about 12 percent.

Within the service industries surveyed by CALURA, foreign control is lowest (7 percent) in transportation, communications and other utilities and highest in wholesale trade, at 23 percent. But even the latter figure is low by comparison with other industrial sectors, such as mining (51 percent foreign-controlled) or manufacturing (54 percent).

There are a number of reasons why Canadian control remains at a high level in some parts of the service sector. One of these is the protection of key sectors through legislation requiring that at least a large proportion of the firms will be Canadian-controlled. Banking and other financial institutions, broadcasting and newspapers are covered by such regulations. Another is direct federal, provincial or municipal government equity participation in certain activities. Examples are rail and air transportation, broadcasting, electric and water utilities and telephone companies. This factor is largely responsible for the high level of Canadian control in the transportation, communications and utilities sector.

Nevertheless, foreign-controlled companies occupy an important place in quite a number of service industries. The Financial Post's list of Canada's largest corporations shows how many of them are among the largest in each industry. Of the 50 largest merchandisers in Canada, 20 are considered to be foreign-controlled: 13 in the United States (including Sears, Canada Safeway, Woolworths, the three foreign-controlled companies in the "top ten"); 4 in the United Kingdom, 2 in Japan and 1 in West Germany. Seventeen of the 35 largest insurance companies are foreign-controlled. Nine of these are controlled in the United States, including Royal Insurance, the largest property and casualty insurer, Allstate and Metropolitan Life, while another seven, including Commercial Union, Lloyd's of London and Prudential are U.K.-controlled. Even among the leading financial institutions, where the "top ten" companies are all Canadian-controlled, there are substantial foreign-owned companies such as General Motors Acceptance Corp., Ford Motor Credit Co. of Canada and Household Finance Corp. In addition, two of the 15 largest real estate developers are foreign-controlled.

Table 1
Foreign control in the service sector, 1977

Industry	Foreign control of industry assets	
	— \$ millions —	— % —
Construction	1,905	12
Transportation, communications and other utilities	6,032	7
Wholesale trade	7,572	26
Retail trade	3,221	16
Business and personal services	3,723	18
Total	22,453	13

Source: Statistics Canada, Catalogue No. 61-210, CALURA, 1980, p. 136.

The United States is by far the most important foreign investor in the service sector, accounting for roughly 73 percent of foreign-controlled assets, followed by the United Kingdom, Japan and West Germany. In fact, in three of the five categories listed in Table 2, U.S. control exceeded 85 percent. Construction was the only category where the total for all other foreign countries was greater than that of the United States.

FIRA's experience with the service sector

In view of the service sector's relatively low level of foreign investment, its share of applications to the Foreign Investment Review Agency may seem surprising. Between April 1974 and the end of March 1980 applications in this sector exceeded the combined total for manufacturing and resource industries. Its predominance was particularly strong in new-business applications (62 percent). The wholesale and retail trade was by far the most frequently

targeted industry in that sector. It is interesting to note that while the United States was identified as the country of control of the applicants in over 60 percent of the cases in four of the five industries listed, this is considerably below its 73-percent share of foreign-controlled assets in the sector as a whole. The only industry category in the service sector in which the United States did not account for the majority of cases was finance, insurance and real estate, Europe accounting for over half the cases.

Investments in the service sector tended to be smaller than those in other sectors, particularly in new businesses for which the average planned investment was about \$520,000 in services compared to over \$1.6 million in other sectors. On the other hand, the average asset value in acquisition cases was roughly the same in services as it was in other sectors (about \$8 million). Only 4 percent of all service sector cases received between April 1974 and March 1980 involved assets of more than \$10 million and most of these were

in real estate, construction and insurance. Furthermore, the average service sector case involved fewer employees than did cases in other sectors. New businesses were to create on average 17 jobs in the service sector compared to 20 in other sectors. On average, service sector acquisitions involved 107 employees, whereas acquisitions in other sectors involved 133.

Nature of foreign investment in services

Unlike goods-producing industries, which can expand their markets by exporting their products, most service industries must establish themselves directly in the market they want to capture. Foreign investments in that sector usually involve horizontal integration through which foreign firms hope to expand the market for their services by carrying out in Canada the same activities they carry out at home. Furthermore, many of these new entrants propose to offer services almost identical to those already offered in Canada. For instance, in the retail trade, firms such as Boots (drugs), Marks and Spencer (clothing), Rustcraft (greeting cards) and Barclay-Lane's (shoes) all expanded their markets by investing in Canada and at a time when there already were well-established firms in those service fields in this country. Another way that foreign companies, notably American, have expanded their operations in Canada has been franchising agreements. Since the establishment of the Agency, firms in such industries as fast foods, auto repairs and service, residential real estate and day care centres have set up Canadian umbrella organizations to oversee independent Canadian franchisees.

While some investments involve services already available in Canada, others introduce ones that are entirely new to

Table 2 **Percentage of foreign-controlled assets by country of control, 1977**

Industry	U.S.	U.K.	Japan	West Germany	Other OECD	Other foreign
Construction	43.2	15.8	x	0.4	38.7	1.5
Transportation, communications & other utilities	91.7	2.7	0.1	1.1	2.2	2.3
Wholesale trade	51.5	15.2	11.9	5.7	13.5	2.2
Retail trade	86.6	10.6	0.9	0.3	1.4	0.3
Business and personal services	86.4	8.6	x	1.1	1.4	1.4
Total	72.4	10.1	4.3 ^e	2.5	9.0 ^e	1.7

x confidential
e estimated

Source: Statistics Canada, Catalogue No. 61-210, CALURA, 1980, pp. 126-130.

Table 3
Reviewable service sector applications
April 1974 — March 1980

Industry	Acquisitions	New businesses ^a	Total
Construction	11	26	37
Transportation, communications and other utilities	41	29	70
Wholesale and retail trade	290	327	617
Finance, insurance and real estate	68	43	111
Community, business and personal services	102	159	261
Total	512	584	1,096

^aThe new-business provisions of the Act came into force in October 1975.

this market. These "new idea" investments may be innovations in the delivery of a service or may represent a wholly new specialization of a segment of an existing market. They generally occur in the business and personal service categories. Commercial mausoleums and mini-warehouses are two concepts introduced to Canada in last few years. But the greatest growth for "new idea" investments has been in the computer service and consulting fields. The Foreign Investment Review Agency has received applications by foreign computer companies offering speciality software programs to lotteries, the dental profession, auto dealerships, aircraft maintenance firms, racetracks and real estate firms. In addition, foreign consulting firms have offered specialized services to companies concerned with air and water pollu-

tion, footwear manufacturers, the forest products industry, and waste disposal firms. Having already incurred the original costs of developing software or expertise in their home market, these computer and consulting firms can offer Canadian companies or individuals their services at attractive prices.

Another major form of investment in the sector is the acquisition or establishment by foreign manufacturers of a distribution capability in Canada. It is almost an axiom of business that the greater the complexity of the product, the greater the advantages of owning one's own distribution network. The underlying reason is that the more complex products require more sophisticated selling and after-sales servicing. Firms that have pursued this strategy include manufacturers of cars,

cameras, computers and audio equipment.

A third category of foreign investment in the service sector is the adaptation of an international scale or the internationalization of services. This often results either from a gradual change in business practices or from an abrupt change in government or industry policy. A most cogent example of internationalization is provided by the insurance brokerage business. Multinational enterprises increasingly prefer to deal with one brokerage company which is familiar with their firm, the industry and the equipment used by their firm in their operations worldwide. Many brokerage firms have established fully-owned subsidiaries to respond to the needs of their multinational clients. Internationalization, however, is not limited to financial industries. For example, parcel delivery firms, which historically were organized on a national basis, are now attempting to establish subsidiaries to handle trans-border shipments as well as serve the local markets.

Occasionally, foreign individuals or companies detect a new need for a particular service in the Canadian market which they do not provide at home. An example of meeting new needs was the recent proposal to FIRA by two U.S. firms to establish a recruitment firm in Canada to provide technical personnel to Canada's aerospace industry, whose recent expansion has led to shortages of engineers, draftsmen and other technical experts in the field.

Outlook

Though the rapid evolution of technology makes identifying trends a rather risky business, some major changes in society will quite probably be the harbingers of certain kinds of investment in the service sector by both foreign and domestic entrepreneurs. The growing participation of women in the labour force and the increasing number of single parents are developments that have and will continue to increase demand for services such as child-care and home cleaning. The recent rapid improvement in communications and computer technology should foster the development of several service activities, particularly for small businesses and individuals. For example, demand may soon increase for paging services, computer time-sharing and more sophisticated security systems.

The internationalization of finance will almost definitely continue. Expected changes in Canada's Bank Act should bring about substantial investment activity by foreign banks. Credit corporations, involved in the issuing and checking of credit, will probably follow this course and insurance, security brokerage and investment counselling services will become even more internationalized.

Table 4
Reviewable service sector applications:
average size of investments

Industry	Averaged planned investment — new-business cases	Average value of assets acquired — acquisition cases
— \$ thousands —		
Construction	5,746	3,944
Transportation, communications and other utilities	288	3,211
Wholesale and retail trade	67	6,342
Finance, insurance and real estate	509	25,632
Community, business and personal services	644	4,922
Sector	520	8,060

Capital investment projects in Canada

Electric power, oil and gas, and mining

This list shows major capital spending projects now in progress or firmly committed in the electric power, oil and gas, and mining sectors. Only projects costing over \$10 million are included. Other sectors will be covered in subsequent issues of the Foreign Investment Review. Information has been obtained from press reports.

This report was prepared by the staff of Foreign Investment Review.

Capital spending in these sectors is expected to remain particularly strong in 1980 and beyond. A recent survey of large firms carried out by Industry, Trade and Commerce reported capital expenditures of nearly \$7 billion for mining and oil and gas companies in 1980 and a further \$6 billion by utilities. Many more projects are still at the planning stage and will involve large expenditures in subsequent years. Thermal coal developments in Northeastern British Columbia, for example, could require nearly \$1 billion over the next several years. In Saskatchewan, the Saskatchewan Potash Corporation plans to spend \$2.5 billion over the next 10 years, and heavy oil projects in Alberta will involve investment of many billions of dollars.

Company and project description	Completion date	Cost (\$ million)	Location
British Columbia			
Electric power			
New power plants			
B.C. Hydro and Power Authority hydro	1983-84	1,600	Revelstoke
hydro	1980	500	Pend d'Oreille River
hydro	1980	410	Peace Canyon
hydro	1987-88	1,500	Peace River, Site C
transmission link		57	mainland to Vancouver Island
Oil and gas			
Westcoast Transmission Co. Ltd.			
Gas transmission line (planned)	1983	183	Williams Lake to Comox
Pacific Northern Gas Ltd.			
Gas transmission line	1983	75	Vancouver Island
Mining			
British Petroleum			
Coal development	1983	400	near Chetwynd
Carolyn Mines Ltd. and Aquarius Group			
New gold mine	1981	20	Hope area
Climax Molybdenum Corp. of B.C. Ltd.			
Re-activate and expand molybdenum mine	1982	145	Alice Arm area
Cominco Ltd.			
Electrolytic and melting plant, zinc refinery	1982	210	Trail
New zinc leaching plant	n.a.	23	Trail
Modernization of Sullivan lead-zinc mine	1985	20	Kimberley
Dupont Canada Inc.			
New gold-silver mine and mill	1981	12	Chappelle
Fording Coal Ltd.			
Expansion, coal mine	1982	115	Elkford

Imperial Oil Ltd. Re-open copper mine	1980	10	Stewart area
Kaiser Resources Ltd. Expand coal preparation plant	n.a.	16	Sparwood
Addition to coke plant	n.a.	10	Sparwood
New coal mine	n.a.	200	Greenhills
Lornex Mining Corp. Ltd. Expansion, copper-molybdenum mine and mill	n.a.	160	Highland Valley
Newmont Mines Ltd., Similkameen Division Open-pit mines	1981	23	Copper Mountain
Noranda Mines Ltd. Develop copper-zinc mine	n.a.	62	Goldstream Valley
Shell Canada Ltd. Thermal coal development	1982	180	Lime Creek
Teck Corp. Ltd. Copper-molybdenum mine and mill	1980	161	Highland Valley
Valley Copper Mines Copper mine	n.a.	300	Highland Valley
Western Mines Ltd. Copper-lead-zinc mine	1983	20	Buttle Lake

Alberta

Electric power

New power plants			
Alberta Power Ltd. thermal	1985-86	750	Sheerness
thermal	1981	242	Battle River
Calgary Power Ltd. thermal	1984	500	Keephills
Edmonton Power thermal	1987-88	663	Genesee

Oil and gas

Amoco Canada Petroleum Co. Ltd. Oil sands pilot project	1982	46	near Fort McMurray
Aquitaine Co. of Canada Ltd. Sulphur prilling plant	1981	10	Ram River
Expansion, gas processing plant	1980	17	Ram River
Chevron Standard Ltd. Gas processing plant	1981	10	West Pembina field
Esso Resources Canada Ltd. Oil sands project	1985	6,000	Cold Lake
Hydrocarbon processing plant	n.a.	12	Everdell
Expansion, gas facilities	1981	75	Judy Creek field
Foothills Pipe Lines Ltd. "Prebuild" for Alaska gas pipeline	1981	655	S.W. Alberta
Gulf Canada Resources Inc. Gas processing plant	1982	200	Robb
Gulf Canada Ltd. Expansion, oil refinery	1983	100	Edmonton
Imperial Oil Ltd. Expansion, oil refinery	1982	100	Edmonton
Shell Canada Ltd. Oil sands project (Alsands)	1987	6,000	Fort McMurray
Oil refinery	1983	750	Edmonton
Suncor Inc. Expansion, heavy oil plant	1982	200	Fort McMurray
Suncor Inc. and Worldwide Energy Co. Heavy oil thermal recovery project	1987	75	Cold Lake area

Mining

Petro Canada Coal mine	1981	38	Kipp
Forestburg Collieries Ltd. Coal mine	1982	n.a.	near Sheerness
Manalta Coal Ltd. Expansion, coal mine	1982	n.a.	near Sheerness

Saskatchewan

Oil and gas

Husky Oil Ltd.

Increase capacity, heavy oil refinery	n.a.	55	Lloydminster
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Mining

Amok Ltd.

Phase 2, uranium mine and mill	1984	85	Cluff Lake
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Potash Corporation of Saskatchewan Ltd.

Expansion, potash mine	1981	73	Rocanville
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Expansion, potash mine	1980	27	Lanigan
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Ideal Basic Industries Inc.

Expansion, potash operations	n.a.	26	Northern Saskatchewan
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Esso Minerals Canada, Numas Oil & Gas Ltd.,

Bow Valley Industries Ltd.

New uranium mine-mill	1984	300	Midwest Lake
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International Minerals & Chemical Corp.

Modernization, potash mine	1982	55	Esterhazy
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Saskatchewan Mining and Development Corp.,

Uranerz Exploration and Eldor Resources

Uranium mine	1983	300	Key Lake
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Manitoba

Electric power

New power plant

Manitoba Hydro hydro	1989	n.a.	Limestone, Nelson River
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Mining

Hudson Bay Mining and Smelting Co. Ltd.

Copper-zinc mine development	1982	10	near Snow Lake
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Inco Ltd.

Ore processing	1980	10	Thompson
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Deepening Birchtree mine shaft	1982	31	Thompson
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Ontario

Electric power

New power plants

Ontario Hydro thermal	1984-88	850	Atikokan
thermal	1981	400	Thunder Bay
nuclear	1983-87	4,200	Bruce B, Lake Huron
nuclear	1982-84	2,900	Pickering, Lake Ontario
nuclear	1988-91	7,000	Darlington, Lake Ontario
Great Lakes Power Co. Ltd.	1982	95	Sault Ste-Marie

Mining

Campbell Red Lake Mines Ltd.

Expansion, gold mine-mill	1982	10	Red Lake area
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New gold mine	1983	75	Detour Lake
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Denison Mines Ltd.

Expansion, uranium mines	1984	250	Elliot Lake
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Dome Mines Ltd.

Expansion, gold mine	n.a.	50	Porcupine area
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Domtar Inc.

Expansion, rock salt mine	1982	25	Goderich
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Eldorado Nuclear Ltd.

New uranium refinery	1982	130	near Port Hope
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Inco Ltd.

Ventilation system, Creighton mine	1982	72	near Sudbury
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Preston Mines Ltd.

Re-activate uranium mine	1984	186	Elliot Lake
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Quebec

Electric power

New power plants					
Société d'énergie de la Baie James	hydro	1979-85	15,000	James Bay area	
Hydro Québec	hydro	1985	900	Manic River	

Mining

Alcan Aluminum Ltd.				
New aluminum smelter	1981	200	La Baie	
Asbestos Corp.				
Improvements, asbestos mine	1983	122	Thetford Mines	
Carey Canadian Mines				
Improving environmental controls	1980	11	East Broughton	
Dumagami Mines				
Molybdenum concentrator	1980	10	Cadillac	
Hudson's Bay Oil and Gas Co. Ltd. and Selco Mining Corp.				
New concentrator	1981	80	Joutel	
Johns-Manville Canada Inc.				
Modernization, asbestos mine-mill	1981	77	Asbestos	
Kiena Gold Mines				
New gold mine	1982	22	Dubuisson Twp.	
Quebec Cartier Mining				
Improvements	1983	179	Port Cartier	
Teck Corp. Ltd. and Niobec Inc.				
Expansion, columbium mine	1981	10	St-Honoré	

Atlantic Region

Electric power

New power plants					
Newfoundland and Labrador Hydro Commission					
	hydro	1980	83	Hinds Lake, Nfld.	
	hydro	1982	155	Upper Salmon River, Nfld.	
Lower Churchill Development Corp.	hydro	n.a.	2,000	Muskrat Falls, Nfld.	
Nova Scotia Power Corporation	hydro (tidal project)				
		1983	47	Bay of Fundy, N.S.	
New Brunswick Electric Power Commission	nuclear	1981	1,100	Point Lepreau, N.B.	

Mining

Brinco Ltd.				
Uranium mine (possible)	n.a.	160	Kaipokok Bay, Labrador, Nfld.	
Brunswick Mining & Smelting				
Expansion and improvements, zinc-lead mine and smelter	1981	44	Bathurst, N.B.	
Brunswick Tin Mines Ltd.				
New tungsten-molybdenum mine and mill	1981	80	near Fredericton, N.B.	
Cape Breton Development Corp.				
Phase 2, Donkin coal mine	1981	30	Cape Breton Island, N.S.	
Denison Mines				
Salt-potash development	1983	150	Sussex, N.B.	
Home Oil				
Underground storage facilities	1983	100	Cape Breton Island, N.B.	
Potash Co. of America				
New potash mine	1981	265	Sussex, N.B.	

Yukon and Northwest Territories

Mining

Arvik Mines Ltd				
Zinc-lead mine development	1982	150	Little Cornwallis Island	
Cyprus Anvil Mining Corp.				
Mill expansion, lead-zinc mine	1981	72	near Faro, YT	

Provincial incentives

In an effort to attract new investment and industry, Canada's provincial governments have developed a range of programs designed to provide professional, technical and financial services to both foreign and Canadian firms. These incentive programs vary from province to province according to their economic vocation, industrial structure and priorities. In addition to providing technical assistance, such as the information and advisory services offered usually by their departments of industry and commerce, several provinces have created economic development corporations which offer financial assistance in the form of subsidies, loan guarantees and participation in share capital. Other provincial corporations work with industry to take advantage of certain market opportunities. All these provincial incentives should be viewed together with the federal government's programs and services. The latter were described in the last issue of the Review (volume 3, number 2).

Newfoundland

"Energy" could become a key word in Newfoundland's future economic vocabulary. The province has already harnessed enormous reserves of hydroelectric power. In addition, several years of intensive offshore oil exploration have produced some very promising results. Currently, however, the cornerstones of the province's economy are fishing, pulp and paper and mining, particularly iron ore. Uranium and gold have also been found. Newfoundland has a limited manufacturing sector in electronics and food and beverages. The province's scenic beauty and unique folklore have made it the site for the development of a significant tourist industry.

Newfoundland and Labrador Development Corporation Limited

The Corporation assists small- and medium-sized business enterprises in the primary and manufacturing sectors to carry out capital projects not exceeding \$2.5 million by lending up to 80 percent of the total capital costs for up to 15 years at the prevailing interest rate. The Corporation can provide up to 49 percent of equity requirements with holdings to be in the form of preference shares.

To encourage the secondary and final processing of fish and fish products, the Department provides loans, interest free for the first two years if principal repayment is within program guidelines, for the purchase of suitable machinery and equipment approved by the Department. **Contact:**

tact: Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.

Department of Industrial Development

The Department has a marketing and product development program for small- and medium-sized companies in which it provides up to 50 percent of a project's total cost, which cannot exceed \$50,000.

Contact: Department of Industrial Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7.

Department of Rural Development

The Department offers rural development authority loans to encourage the development of small resource-based industries. It provides interest-free loans of up to \$20,000 for the purchase of land or buildings, or the construction or renovation of buildings, and the purchase of equipment and machinery. Loans can also be used for working capital.

Development grants, covering up to 50 percent of approved capital costs, are offered to manufacturing and processing industries and to industries utilizing the primary resources of the province. Manufacturing and processing companies that wish to establish themselves, expand or modernize can receive up to 50 percent of approved capital costs for projects not exceeding \$25,000. The same kind of grant is

available for industries utilizing the primary resources of the province, the difference being the maximum value of the projects which is \$60,000 for establishment purposes and \$30,000 for expansion purposes. In addition, grants, covering up to 75 percent of approved costs, are offered for research and development projects not exceeding \$10,000, which may lead to the establishment or expansion of manufacturing or processing facilities within the province or the utilization of the province's primary resources. **Contact:** Department of Rural Development, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7.

A number of other programs are available. Interested readers should contact the Planning and Priorities Secretariat, Executive Council, Confederation Building, St. John's, Newfoundland, Canada A1C 5T7

Prince Edward Island

Prince Edward Island is Canada's smallest province. Traditionally, agriculture and fishing have been its economic cornerstones. The Island's charming scenery has made tourism one of the province's principal industries. In recent years, however, the province has enjoyed considerable industrial growth, notably in specialized manufacturing and food processing. This has added greater balance to the province's economy. Prince Edward Island has two significant industrial programs for the development of light industry.

Industrial Enterprises Incorporated

This organization provides serviced lands and facilities in industrial parks at attractive rates and flexible terms. It also provides assistance for capital expenditures in the form of first mortgage loans on real estate and equipment. **Contact:** Industrial Enterprises Incorporated, West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0

Industrial Assistance Program

Administered by the Department of Industry and Commerce, the program provides financial assistance in the form of interest-free forgivable performance loans (FPL) to manufacturing and processing businesses, as well as to selected service industries. Eligible manufacturing and processing businesses may receive a maximum FPL of up to \$30,000 for any one project. In addition, the program provides assistance for the purchase of new, used or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. Financing for the program is on

a joint federal-provincial basis. **Contact:** Department of Industry and Commerce, P.O. Box 2000, Charlottetown, Prince Edward Island, Canada C1A 7N8

Nova Scotia

A peninsula situated on the Atlantic coast, Nova Scotia has developed an international reputation for its oceanographic and aquacultural research. Fishing is naturally one of the province's most important industries. Nova Scotia has a long mining history with its significant deposits of coal, lead and zinc. In addition, the province has been the setting for considerable off-shore oil and gas exploration. Manufacturing in Nova Scotia is based principally on resource processing, although companies such as Crossley-Karastan, Volvo and Michelin have an increasing input to the economy of the province. There is also a growing number of high-technology industries related to ocean industry, an area which is receiving keen attention from business and government as the province trains its attention to profiting from the 200-mile economic zone. The province also has a vigorous tourist industry. Nova Scotia is and has always been an active trading province, as is shown by the tonnage which passes through its capital, Halifax, which also is one of the largest ports on the east coast.

Industrial Estates Ltd.

Industrial Estates Ltd. is a crown corporation for the development of secondary industry in Nova Scotia. It provides long-term loans on 20-year first mortgages on 100 percent of the cost of land and buildings of secondary manufacturers and up to 60-percent financing of machinery with 10 years to repay. **Contact:** Industrial Estates Ltd., 5151 George Street, 7th Floor, Halifax, Nova Scotia, Canada B3J 1M5

Nova Scotia Department of Development

The Nova Scotia Department of Development is responsible for the development of businesses and industry. It offers loans to primary industries, tourism and fishing through the Nova Scotia Resources Development Board. The department also has specific assistance programs in marketing, management development, product design and development and opportunity identification, as well as a rural industry program offering capital grants to businesses wishing to expand, establish or modernize outside the Halifax-Dartmouth area. An industrial malls program encourages new small businesses and industries with rental and other assistance in the first year of their existence. Other programs are

offered by the departments of agriculture, lands and forests, tourism, labour, fisheries and education which may be relevant to businesses and industries. **Contact:** Nova Scotia Department of Development, 5151 George Street, Halifax, Nova Scotia, Canada, B3J 1M5

New Brunswick

New Brunswick offers some very real geographic advantages to investors; on one side of the province is its common border with the United States and on the other, its seaports provide easy access to both North American and European markets. As a result, New Brunswick is an important trade area on the Atlantic coast. Agriculture, forestry and mining are all important economic activities in the province. In recent years, manufacturing has grown significantly, particularly pulp and paper, food processing and non-ferrous metals.

Department of Commerce and Development

The Department offers firms established in New Brunswick an extensive support program in the areas of management, marketing, production and distribution. The Department also seeks out and processes new industrial projects, and evaluates applications for financial assistance submitted to the New Brunswick Industrial Development Board by entrepreneurs wishing to establish businesses in New Brunswick. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada, E3B 5H1

New Brunswick Industrial Development Board

The Board offers financial assistance to firms in the form of direct loans, bonds or loan guarantees, or the acquisition of shares. The Board also administers a joint federal-provincial grant and loans program for small businesses. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1

Provincial Holdings Ltd.

This Crown corporation has holdings in the share capital of manufacturing companies located in New Brunswick. The agency can hold equity in manufacturing and processing industries that wish to become established in New Brunswick. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1

Quebec

Quebec has a wealth of natural resources on which it can base further economic expansion. The province has a relatively strong industrial base, particularly in aeronautics, shipbuilding and public transport equipment. It has strong growth prospects in the machinery and electrical products industries. Quebec's tremendous reserves of hydroelectric power, available at a very competitive price, make the province an attractive location for the development of highly productive manufacturing industries, particularly in the electrometallurgical and electrochemical sectors. Also worth mentioning are Quebec's relative strength and technological competence in transport equipment, communications instruments, electrical equipment and pharmaceuticals.

Quebec Industrial Development Corporation (QIDC)

The QIDC is the Government of Quebec's principal tool for providing financial assistance to manufacturing firms established in Quebec. This assistance is offered in different forms according to the nature and needs of the recipient firm: loans at prevailing market interest rates; partial reimbursement of debt costs; partial reimbursement of loans when certain criteria are met; and participation in share capital. **Contact:** Quebec Industrial Development Corporation, 1126 Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5

Fiscal incentives for industrial development

These incentives are based on an industrial development fund designed to assist small- and medium-sized firms through fiscal abatement and a tax rebate to encourage regional industrial development in the manufacturing sector. **Contact:** Industrial development fund administration, Department of Industry and Commerce, 710 Place d'Youville, Room 403, Quebec, Quebec, Canada G1R 4Y4

Department of Industry and Commerce

The Department provides technical services to firms in marketing, financing, management, manpower and production, the negotiation of licensing agreements, market studies and statistics. It has permanent delegations or economic counsellors in Atlanta, Boston, Brussels, Chicago, Dallas, Dusseldorf, London, Los Angeles, Milan, New York, Paris, Tokyo and Toronto. **Contact:** Quebec Department of Industry and Commerce, Industrial Promotion Branch, 1 Place Ville-

Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6

Quebec enterprise development corporations (SODEQ)

These are private corporations that invest in small- and medium-sized Quebec manufacturing firms to which they offer management assistance. **Contact:** Department of Industry and Commerce, Enterprise services branch, 710 Place d'Youville, 8th Floor, Quebec, Quebec, Canada G1R 4Y4

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned societies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** Quebec Ministry of Industry and Commerce, Industrial Promotion Directorate, Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6

Processing firms can also receive exemptions from the provincial sales tax on certain products, tax rebates on fuel purchases and on industrial machinery used for processing in Quebec.

Ontario

Ontario is one of Canada's most important centres of economic activity. Of all the provinces, it has the largest number of manufacturing firms and is the home of numerous head offices. Its capital, Toronto, is the financial heart of this country and the service industry is highly concentrated there. Its most important industries are automobile manufacturing, steel, tourism, mining and pulp and paper. The Government of Ontario offers various programs which provide financial incentives and advisory services to stimulate the economy and create jobs.

Development Corporations

Ontario has three development corporations: the Ontario Development Corporation, the Eastern Ontario Development Corporation and the Northern Ontario Development Corporation. They are responsible for the administration of the Ontario Business Incentive Program, which offers special incentives to encourage the establishment of new manufacturing enterprises and the expansion of existing industries. Loans made under the program are repayable, but repayment may be deferred and interest waived for up to five years.

The corporations also assist manufacturing, service industries, tourist operators

and exporters who want to expand and establish new facilities or to market new products and technology. This assistance can include industrial mortgages, leasebacks, export assistance, business capital loans and small business loans. Funding to the corporations is being doubled to \$25 million in 1980-81 and its credit limit under the export support loan program is being raised to \$1 million from \$500,000. **Contact:** Ontario Development Corporation, Mowat Building, 900 Bay Street, Toronto, Ontario, Canada M7A 2E7

Employment Development Board

An Employment Development Fund was created in 1979 to stimulate growth of Ontario's economy by attracting new investments. Applications for assistance by Ontario businesses are judged on a case-by-case basis in terms of how well they satisfy the objectives of the Board, which also must consider competing requests and the funds available. Applications for less than \$250,000 should be directed to the Ontario Development Corporation. **Contact:** Program Director, Ontario Employment Development Board, 6th Floor, Hearst Block, 900 Bay Street, Toronto, Ontario, Canada M7A 2E1

Small Business Development Corporations Program

Incentives in the form of a share credit program are provided to encourage equity investment in Ontario-based small business ventures. The incentives are available only on new issues of SBDC shares.

Subject to certain conditions, investors may establish their own small business development corporation through a straightforward registration procedure. In 1980-81, the minimum capital requirement for an SBDC is \$100,000. Businesses involved in mining, oil and gas exploration, development and production do not qualify as eligible investments, but will be handled in separate incentive programs.

For individuals, upon receipt of their share certificates from the SBDC, they may apply to the Ontario Ministry of Revenue for their share credit. A special statement concerning the share purchase will be provided by the SBDC to the Ministry of Revenue for this purpose. For corporations, the statement will be submitted to the Ministry of Revenue and, when approved, installment payments not fully applied in the year of investment may be carried forward indefinitely. **Contact:** Taxation and Fiscal Policy Branch, Ministry of Treasury and Economics, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 1Y7 or SBDC Program, Ministry of Revenue, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 2B3

Ministry of Industry and Tourism

Ontario's Ministry of Industry and Tourism offers industry services to manufacturing companies and service industries to expand in the province, to find new business opportunities, to seek out and apply new technologies, to establish new production facilities and to market their products domestically and internationally. It also makes available an array of trade services to identify and develop export markets, to assist selected industries to increase export market penetration, to identify and develop import replacement opportunities and to help target industries increase their share of the domestic market. **Contact:** Ontario Ministry of Industry and Tourism, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 2E1

Manitoba*

Gateway to Canada's West, Manitoba has an economy based primarily on agriculture and mining. In recent years, however, the province has seen its economic base expand and diversify as a result of a growing manufacturing industry which is less closely tied to natural resources.

Department of Economic Development and Tourism

For the next three years, the major thrust of the Department's programs for business will be the \$44-million federal-provincial Industrial Development Agreement known as Enterprise Manitoba, whose purpose is to stimulate growth in the manufacturing sector by focussing on six specific industries: aerospace, electronics, food and beverages, health care products, light machinery and transportation. In addition to the direct funding assistance provided to business by Enterprise Manitoba, the Department provides strong service support through its pool of experienced industrial consultants.

The Department offers a variety of programs to business. The Rural Small Enterprise Incentives Program provides interest-free forgivable loans to manufacturing, processing or related maintenance or repair businesses: for new firms, the loans are on the basis of 50 percent of eligible capital costs up to \$30,000; for existing businesses, they are on the basis of 30 percent of eligible capital costs up to \$18,000. To be eligible, businesses must have yearly sales not exceeding \$500,000 and be located outside Winnipeg and adjacent municipalities.

Advance factory space can be provided in one of the two Enterprise Development

Centres located in Brandon and Winnipeg to businesses that are new or that are introducing a new product or are embarked on a marked departure from previous operations. Self-contained modules of factory space, ranging in size from 1,350 m² to 3,600m², will be offered to businesses on a cost-shared basis. Also offered through the Enterprise Development Centres, specifically for small manufacturing firms, are technical and business consulting services for the purpose of improving products, sales and profitability, upgrading management skills, and starting or expanding businesses. Expertise will be available generally through staff resources at the Centres, but provision has been made for cost-sharing of up to 50 percent of the cost of hiring private consultants when highly specialized expertise is required.

The Department also has a Human Resources Management program which offers educational programs and courses to Manitoba businesses to assist them in upgrading their management skills, specifically as they relate to human resources. **Contact:** Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8

Market Development Group

The Market Development Group coordinates export sales and administers a promotional assistance program which provides cost-shared financing for participation in trade fairs and missions, assistance related to incoming buyers and general promotional activities.

The Manitoba Trading Corporation, an arm of the Market Development Group, provides export financing by extending credit to agents, distributors and organizations. The Corporation may act as an export merchant by taking title to presold export orders, or may act as an agent.

Contact: Market Development, Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8

Travel Manitoba

Operators of packaged tours within or bringing visitors to Manitoba are assisted with grants for the initial development and marketing of new tour products. Grant assistance to a maximum of \$15,000 or 50 percent of approved costs in the first year and \$3,000 or 25 percent of approved costs in the second year of a new product may be obtained.

Consultative, research and advisory services to prospective investors in the tourism industry in Manitoba are also provided. **Contact:** Travel Manitoba, Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8

Manitoba Design Institute

The Institute provides consulting and advisory services for market research, design and redesign of products, graphic materials and packages. Assistance funding is also made available. **Contact:** Manitoba Design Institute, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8

Manitoba Research Council

The Council provides technical assistance by industrially experienced scientists and engineers in the general area of product and processes development, raw material selection and testing, product testing, quality control, product costing and so on. **Contact:** Manitoba Research Council, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8

Saskatchewan*

Saskatchewan is Canada's most important agricultural province and, given the importance of this industry to the province's economy, it is not surprising that a number of agricultural equipment manufacturers have established themselves there. In addition, Saskatchewan is the home of the Canadian West's largest steel industry and its production of iron and steel products has been steadily growing. The province has a special interest in industries related to food processing, electronics, plastics, pharmaceuticals and those supplying its growth resource sector, particularly petroleum, uranium and potash.

Department of Industry and Commerce

The Department of Industry and Commerce offers a multitude of development programs to assist manufacturers and processors located in the province. These include: the Aid to Trade Program for manufacturers who wish to extend their market areas through promotion; the Product Development Program to help develop new products and to finance tests; the Management Development Program; the Small Business Interest Abatement Program and the Small Industry Development Program. These programs provide assistance up to 50 percent of approved costs,

**Manitoba, Saskatchewan, as well as the Yukon Territories are designated regions for federal industrial incentives provided by the Department of Regional Economic Expansion (DREE). Reference to them was omitted in the last issue of the Foreign Investment Review, in which federal incentive programs were summarized.*

except for the latter which provide forgivable loans, according to region and population, and abatement grants. **Contact:** Saskatchewan Department of Industry and Commerce, Power Building, 7th Floor, Regina, Saskatchewan, Canada S4P 3V7

Saskatchewan Economic Development Corporation (SEDCO)

Provides mortgages up to 20 years, loan guarantees, venture capital and industrial land for lease or sale. **Contact:** Saskatchewan Economic Development Corporation, 1106 Winnipeg Street, Regina, Saskatchewan, Canada S4R 6N9

Alberta

With its abundant petroleum, natural gas and coal resources, Alberta is Canada's most important energy-producing province. In addition to intense exploration and development activities in Alberta's conventional and non-conventional energy resources, the manufacturing and service sectors have grown extensively. Alberta is also an important agricultural producer, particularly in grains and livestock. The volume of government revenues from petroleum production royalties and exploration and development permits has made it possible for Alberta to have the lowest personal and corporate income tax rates in Canada.

Department of Economic Development

The Department offers a variety of services relevant to industry. Its Strategic Planning Services are responsible for coordinating economic activity related to a number of government departments. Its Industry Development Branch has as its goal to improve the performance of Alberta's manufacturing and processing industries by means of sector development programs, business expansion assistance and new-business establishment programs. The Department offers marketing services, seeking to match product and manufacturing capacities with domestic and foreign market opportunities as well as assisting business on marketing problems. The Department also offers trade-development services by assisting the industrial and consulting sectors to expand export sales through trade shows, exhibits, missions, joint ventures and licensing opportunities. **Contact:** Department of Economic Development, Government of Alberta, Industry Development Branch, 9th Floor, Pacific Plaza, 10909 Jasper Avenue, Edmonton, Alberta, Canada T5J 0M8

Alberta Opportunity Company

The company provides funds for growth, expansion and diversification of industry when other forms of conventional financing are not readily available. This includes direct loans at market rates for up to 15 years and loan guarantees. Emphasis is placed on small business in smaller communities. **Contact:** Alberta Opportunity Company, P.O. Box 1860, Ponoka, Alberta, Canada T0C 2H0

Department of Tourism and Small Business

The Department aims to develop Alberta as a year-round destination for tourists by offering marketing and development services to the tourist industry. Small business is assisted by means of counselling activities, management consulting, small business guides, community economic development, and an industrial land and business site location program. **Contact:** Department of Tourism and Small Business, Government of Alberta, 16th Floor, Capital Square, 10065 Jasper Avenue, Edmonton, Alberta, Canada T5J 0H4

British Columbia

Canada's Pacific province, British Columbia has an extensive export-oriented resource-based economy in which forestry, mining, fishing and agriculture predominate. British Columbia's geographical position has made it a natural site for the development of important export industries with direct access to Pacific Rim and other world markets. In fact, the province's largest city, Vancouver, is Canada's gateway for trade with Japan, China and other Asian countries, the Western United States, Latin America and Europe. British Columbia's principal manufacturing firms are closely tied to the province's natural resources, essentially forest products, pulp and paper, mineral commodities and hydrocarbons. Several of the province's industries have recently experienced substantial growth with pulp and paper, lumber and plywood production and fish products heading the list.

Ministry of Industry and Small Business Development

The Ministry offers a variety of programs designed to stimulate industrial and export development, especially in secondary manufacturing. Its export services include programs related to trade missions, market development, incoming buyers and trade shows. The Ministry's technical services assist companies to expand their facilities, diversify their product lines or establish new businesses by means of financial

support for hiring outside professionals to help develop corporate plans and operations.

The Ministry also coordinates and manages a number of federal-provincial programs designed to encourage the economic and industrial development of the province. One such program is a \$70-million agreement to provide assistance for research, regional economic development commissions, small business and community industrial development (industrial parks, sites, malls and advance factory space). A \$60-million agriculture and rural development program provides assistance for research, planning, training, market promotion, coordinated resource management, primary resource development, support services and community development. A third program, the result of a \$50-million agreement, provides assistance to the province's tourist industry. All these programs have geographical target areas which generally exclude the areas in and around Vancouver and Victoria. Because of geographical exclusions, the Ministry has implemented, on a year-by-year basis a low-interest loan program for small businesses in the Vancouver and Victoria areas. **Contact:** Director, Business Development, Ministry of Economic Development, Robson Square, 800 Hornby Street, Vancouver, British Columbia, Canada V6Z 2C5; or, Assistant Deputy Minister, Program Implementation and Coordination Branch, Ministry of Economic Development, Parliament Buildings, Victoria, British Columbia, Canada V8V 1X4

British Columbia Development Corporation (BCDC)

The BCDC provides financing in the form of term loans, loan guarantees, performance bonds, indemnities to chartered banks and leasing of buildings. While there is no limit on the amount of funds the Corporation may provide, in large-scale projects it prefers to provide assistance in conjunction with other financial institutions. As well as its own corporate lending activity, the BCDC administers the province's Low Interest Loan Assistance Program by virtue of which loans can be made to manufacturing or processing businesses that wish to modernize, expand or establish in the less developed areas of the province. Finally, the BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the Land Development Division. The BCDC acts as project manager of large capital projects in British Columbia. **Contact:** British Columbia Development Corporation, 272 Granville Square, 200 Granville Street, Vancouver, British Columbia, Canada V6C 1S4

Statistical tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status	First six months					
	1976	1977	1978	1979	1979	1980
Reviewable new cases	171	261	360	380	195	179
Carryover from previous period	54	65	73	106	106	114
Total of above	225	326	433	486	301	293
Total resolved	160	253	327	372	176 ^r	182
Allowed	124	231	282	320	152	151
Disallowed	19	12	28	24	5	19
Withdrawn	17	10	17	28	19 ^r	12
Carried over to next period	65	73	106	114	125 ^r	111
Allowed cases as percent of resolved (%)	78	91	86	86	86 ^r	83
Value of assets, all cases (\$000,000)	1,069	1,145	4,491	4,049 ^r	2,138	1,134

Table 2 — Country of control	First six months					
	1976	1977	1978	1979	1979	1980
Total	171	261	360	380	195	179
United States	109	171	243	248	137 ^r	101
United Kingdom	23	40	47	52	27 ^r	30
Other Europe	34	41	52	68	25	34
Austria	-	-	-	1	1	-
Belgium	1	2	1	2	1 ^r	-
Denmark	-	2	1	1	-	1
Finland	-	-	-	2	-	1
France	6	6	5	9	6	5
Germany, West	10	15	17	22	10 ^r	9
Greece	-	-	-	1	1 ^r	-
Italy	1	3	1	2	-	2
Liechtenstein	-	-	1	1	-	1
Luxembourg	3	-	1	-	-	-
Netherlands	-	4	8	6	-	5
Norway	-	-	1	-	- ^r	-
Spain	-	-	-	1	-	-
Sweden	9	2	7	13	4	4
Switzerland	4	7	9	7	2	6
All other	5	9	18	12	6	14
Australia	-	1	-	3	-	3
Bermuda	1	-	-	1	1	1
Japan	3	3	7	2	1	2
Others	1	5	11	6	4	8
Allowed cases as percent of resolved	%	%	%	%	%	%
United States	73	91	87	85	89	81
United Kingdom	82	95	78	87 ^r	90	86
Other Europe	86	90	89	88	83	89
All other	100	80	80	93	89	92

Table 3 — Industrial sector	First six months					
	1976	1977	1978	1979	1979	1980
Total	171	261	360	380	195	179
Primary	15	20	30	29	18	9
Agriculture, fishing and trapping	2	4	5	4	1	-
Forestry	-	1	1	-	-	1
Mines, quarries, oil wells	13	15	24	25	17	8
Manufacturing	93	108	162 ^r	178	87 ^r	71
Food, beverage and tobacco	9	15	15	14	7	5
Rubber, plastic and leather	4	6	12	5	1	3
Textiles, knitting and clothing	3	5	4	14	7	3
Wood, furniture and paper	7	12	14	10	4	3
Printing, publishing, and allied	1	2	4	5	2	2
Primary metal and metal fabrication	19	12	20	34	13 ^r	11
Machinery and transport equipment	7	14	28 ^r	43	27	15
Electrical products	11	12	16	20	12	12
Non metallic mineral products	9	5	8	4	3	2
Petroleum and coal products	2	1	1	1	-	-
Chemical	15	10	22	17	9	6
Miscellaneous	6	14	18	11	2	9
Construction and services	63	133	168 ^r	173	90 ^r	99
Construction	2	3	1	6	3	2
Transportation, communication, utilities	9	10	10 ^r	9	3	3
Trade	38	72	101 ^r	93	55 ^r	59
Finance, insurance, real estate	8	15	19	12	3	9
Community, business, personal services	6	33	37 ^r	53	26	26

* Provision for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status					First six months	
	1976	1977	1978	1979	1979	1980
Reviewable new cases	196	328	331	379	183 ^r	199
Carryover from previous period	6	58	52	64	64	70
Total of above	202	386	383	443	247 ^r	269
Total resolved	144	334	319	373 ^r	160 ^r	182
Allowed	115	297	273	323 ^r	139	160
Disallowed	9	12	21	22	7	14
Withdrawn	20	25	25	28	14 ^r	8
Carried over to next period	58	52	64	70 ^r	87 ^r	87
Allowed cases as percent of resolved (%)	80	89	86	87	87 ^r	88
Planned investment, all cases (\$000,000)	324	803	323	202	107	339

Table 5 — Country of control					First six months	
	1976	1977	1978	1979	1979	1980
Total	196	328	331	379	183 ^r	199
United States	90	184	192 ^r	205	111	114
United Kingdom	22	30	26	45	18	14
Other Europe	63	85	80	82	33 ^r	57
Austria	-	-	3	-	-	1
Belgium	1	-	1	5	2 ^r	-
Denmark	5	6	4	2	1	4
Finland	1	1	1	7	3 ^r	1
France	9	17	16	15	4 ^r	5
Germany, West	22	26	18	19	9 ^r	12
Gibraltar	-	-	-	-	-	1
Greece	-	1	1	-	-	1
Ireland	-	-	1	1	- ^r	-
Italy	9	10	10	6	3 ^r	10
Liechtenstein	2	-	-	-	-	1
Luxembourg	-	-	1	-	-	-
Monaco	-	1	-	-	-	-
Netherlands	2	3	1	4	1	6
Norway	-	3	3	1	1	2
Portugal	-	-	1	-	-	-
Spain	1	-	2	1	1 ^r	2
Sweden	3	9	5	6	2	7
Switzerland	8	8	12	15	6	4
All other	21	29	33 ^r	47	21	14
Australia	2	3	3	2	1	2
Hong Kong	3	3	3	4	1	3
India	3	1	1	1	1	-
Japan	4	10	6	17	6	1
Others	9	12	20 ^r	23	12	8
Allowed cases as percent of resolved	%	%	%	%	%	%
United States	73	88	86	86	90	92
United Kingdom	93	82	85	92	93	88
Other Europe	80	95	87	88	84	90
All other	91	81	79	83	82	61

Table 6 — Industrial sector					First six months	
	1976	1977	1978	1979	1979	1980
Total	196	328	331	379	183 ^r	199
Primary	12	22	27	16	12	22
Agriculture, fishing and trapping	2	6	2	-	-	4
Forestry	-	2	2	1	1	1
Mines, quarries, oil wells	10	14	23	15	11	17
Manufacturing	67	94	99	100	50 ^r	60
Food, beverage and tobacco	3	7	6	11	5	5
Rubber, plastic and leather	4	5	5	9	5	6
Textiles, knitting and clothing	4	9	5	8	3	3
Wood, furniture and paper	5	5	6	9	2	4
Printing, publishing, and allied	-	-	4	5	2	1
Primary metal and metal fabrication	15	19	12	13	8 ^r	15
Machinery and transport equipment	6	19	19	20	13 ^r	5
Electrical products	7	5	7	8	4	10
Non metallic mineral products	3	5	6	1	-	2
Petroleum and coal products	-	-	-	-	-	-
Chemical	6	3	6	7	5	6
Miscellaneous	14	17	23	9	3	3
Construction and services	117	212	205	263	121	117
Construction	4	4	14	12	9 ^r	6
Transportation, communication, utilities	10	5	11	11	5	5
Trade	68	133	103 ^r	156	69	63
Finance, insurance, real estate	10	16	11	14	6	3
Community, business, personal services	25	54	66 ^r	70	32 ^r	40

* Provisions for review of new businesses came into force October 15, 1979

International business and investment

International Business Prospects 1977-1999

Van Zandt, Howard F. (editor)
Indianapolis: Bobbs-Merrill Company, 1978

Seven papers on the future of international business. Originally presented as part of a "Key Issues" lecture series sponsored by International Telephone and Telegraph Corporation, they cover investment prospects in several regions, human relations, tourism and travel, and food and energy needs.

Working on the Quality of Human Life: Developments in Europe

International Council for the Quality of Working Life
Boston, The Hague and London: Martinus Nijhoff, 1979

Papers covering programs, projects and issues in connection with improvements in the quality of working life in a number of European countries.

Going International: The Experience of smaller companies overseas

Newbould, Gerald D.; Peter J. Buckley and Jane Thurwell
New York: John Wiley & Sons, 1979
London: Associated Business Press, 1978

Based on interviews with management of 43 smaller companies that had recently set up their first overseas operating subsidiary, this study seeks to identify the factors which promote success in such a venture.

Assessment of Managers: An International Comparison

Bass, Bernard M. and Philip C. Burger in collaboration with Robert Doktor and Gerald V. Barrett
Riverside, N.J.: The Free Press, 1979

An international survey of attitudes and behaviour of corporate executives showing which traits lead to success in different countries.

Corporate Diversification: Entry, Strategy and Performance

Biggadike, E. Ralph
Cambridge, Mass.: Harvard University Press, 1979

This study draws on the experience of forty business units which entered product markets new to the parent company to

provide guidelines and measures for new entry performance.

Industry and Business in Japan

Sato, Kazuo (editor)
White Plains, NY: M.E. Sharpe, Inc., 1980

Papers by Japanese economists on such topics as Japanese industrial growth, dual structure, industry studies, business groupings and industrial policy.

Canada: Business, investment, government policy

Key Economic and Social Issues of the Early 1980's

Barrett, Charles A. (editor)
Ottawa: The Conference Board in Canada, 1980 (Canadian Study No. 62)

Results of a round-table meeting to define social and economic issues that Canada will face in the 1980's and to discuss some possible directions for the Canadian economy. Includes papers on specific issues, including demographic developments, competitive environment, energy and agricultural prices and supply, as well as summaries of discussion.

Privatization: Theory and Practice

Ohashi, T.M. and T.P. Roth
Vancouver: The Fraser Institute, 1980

Analyzes the British Columbia Government's divestiture of the British Columbia Resources Investment Corporation, as well as the effects of Generalized Stock Ownership plans.

Foreign and Domestic Firms in Canada: a comparative study of financial structure and performance

Shapiro, Daniel M.
Toronto: Butterworth, 1980

Compares the financial structure, patterns of profitability and growth of some 750 foreign-owned and domestic firms in Canada.

Multinationals in Canada: Theory, Performance and Economic Impact

Rugman, Alan M.
Hingham (MA): Martinus Nijhoff Publishing, 1980
The Hague: Martinus Nijhoff Publishers BV, 1980

Theory of internationalization applied to a case study of multinationals operating in Canada.

Industrial Relations 1980: Outlook and Issues

Grier, Martha E. (editor)
Ottawa: The Conference Board in Canada, 1980 (Executive Bulletin No. 10)

Views of a panel of industrial relations specialists on the likely outcome of the 1980 round of collective bargaining in Canada, including such issues as wage increases and benefits, job security, strikes and union growth.

Canadian Business Handbook

Newman, Dorothy and Jean Newman
Scarborough, Ont.: McGraw-Hill Ryerson, 1979

Revised edition of a business reference covering most recent information on business procedures, policies, techniques and trends.

Assessing Canada's Potential Economic Growth

Carmichael, Edward A.
Ottawa: The Conference Board in Canada, 1979

Estimates the economy's potential GNP and assesses its recent performance and outlook for the next several years.

The Chartered Banks in Canada . . . Their Role and Organization

Toronto and Montreal: The Canadian Bankers' Association, 1979

An interim re-print (pending Bank Act revision) describing the organization and management of the chartered banks in Canada, the services they provide and their role in the Canadian financial system.

Handbook of Canadian Consumer Markets, 1979

Conference Board in Canada
Ottawa: The Conference Board in Canada, 1979

Consumer market data drawn from a variety of sources.

1978 Assessment of Canada's Uranium Supply and Demand

Department of Energy, Mines and Resources
Ottawa, 1979 (Catalogue No. M23-12/79-3)

Assessment of Canadian uranium resources, current and projected levels of production and domestic requirements.

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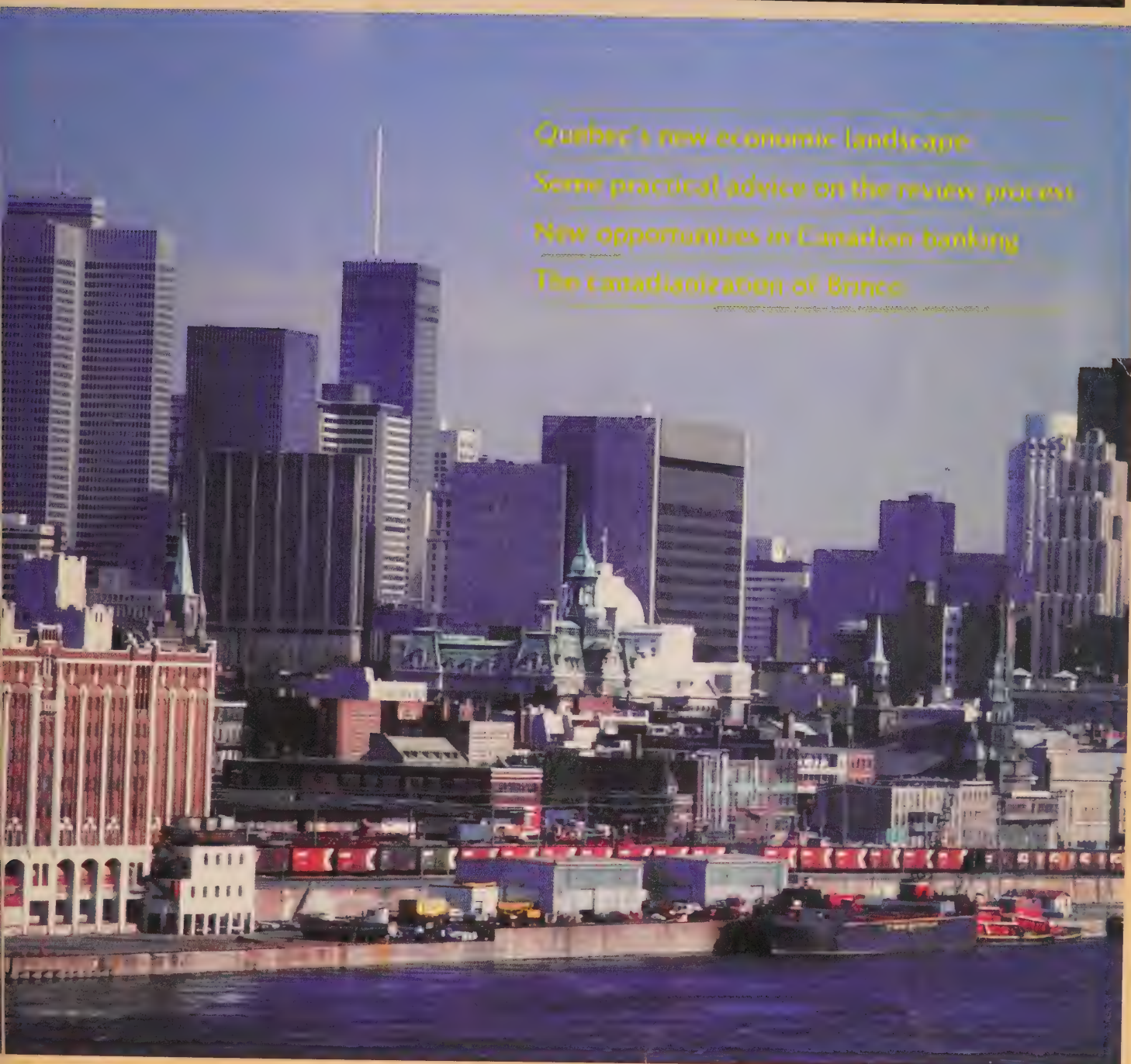
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FIRA and the new National Energy Program

Announced simultaneously with the federal budget on October 28, the new National Energy Program has stimulated considerable comment both in and out of Canada.

The energy policy rests on three fundamental precepts:

- It must establish the basis for Canadians to seize control of their own energy future through security of supply and independence from the world oil market;
- It must offer to Canadians the real opportunity to participate in the energy industry in general and the petroleum industry in particular, and to share in the benefits of industry expansion; and
- It must establish a petroleum pricing and revenue-sharing regime that recognizes the requirement of fairness to all Canadians.

The first two precepts were translated into two specific goals: the first is to ensure "... at least fifty percent Canadian ownership of oil and gas production by the end of this decade" and the second "... Canadian control of a significant number of the larger oil and gas firms". These are ambitious goals, considering that Canadian ownership of production is currently about 30 percent and Canadians control only 8 of the 25 top oil and gas producing companies in Canada.

Direct reference was made to FIRA in the statement of the new energy program. It stated that "FIRA will ... continue to play a key role in ensuring the government's Canadianization goals". Implied is that an even greater weight than in the past will be given to the Canadian ownership factor in the Agency's review of investment proposals in the energy sector. Another investment review criterion that will be affected is the one concerning the compatibility of an investment with national and provincial economic and industrial policies. The message is quite clear: energy is a vital sector of the economy in which Canadians must have an increasing share of ownership and control, and the Foreign Investment Review Act will be applied in such a way as to contribute to the attainment of that goal.

The recent precision and clarity of the statement of these ownership objectives tend to shroud the fact that they have been an established part of federal economic policy for a number of years. In fact, the policy objective of increasing Canadian ownership and control of the energy sector pre-dates the Foreign Investment Review Act. In 1970, the federal government announced such a policy in

relation to the mining of uranium. In 1974, only a few months after the creation of the Foreign Investment Review Agency, Prime Minister Trudeau announced increased Canadian ownership as an objective of the Liberal Party of Canada. Two years later, reference was again made to that policy objective in the federal government's energy paper entitled *An Energy Strategy for Canada*. Another clear indication of this policy orientation was made in 1977 when the Canada Oil and Gas Land Regulations were amended to provide that authority would be given for the production of petroleum from federal lands only if Canadian equity interests in the undertaking amounted to at least 25 percent. The new energy program calls for that share to be increased to 50 percent.

These energy policy objectives, therefore, are not of recent vintage. They have existed and have been stated in one form or another over the past 10 years. The key difference is the clarity and precision with which they have been stated.

New banking legislation

On November 26 Senate approval and Royal Assent were given to new banking legislation which had been approved by the House of Commons on November 19. This is the final chapter of a six-year review of the 468-page statute, which involved a Government white paper, extensive hearings before Senate and House of Commons committees and four banking bills.

Beyond the usual objectives inherent in such legislation, it is hoped that the new legislation will increase competition in the Canadian banking system by providing easier entry of new or existing Canadian-owned institutions; by extending the powers of banks to include financial leasing, factoring and venture capital; and by recognizing the presence of foreign bank subsidiaries in the Canadian banking system by according to them a competitive role in the federal system, while ensuring that the Canadian banking system remains predominantly Canadian-owned and managed.

In addition, the legislation clarifies the business powers of banks in some areas such as data processing and underwriting of corporate securities.

Furthermore, the legislation establishes a Canadian Payments Association to ensure that the national payments system in Canada evolves in a manner that is fair to all participants, that is responsive to technological change and that is efficient.

For details on how the new legislation affects the operations of foreign bank sub-

sidaries in Canada, readers should consult the article on the new Bank Act which appears in this issue of the Foreign Investment Review.

Canada reluctantly introduces "credit mixte"

The Canadian Government has introduced a new element into its export development program: credit mixte. This is an export financing device that blends concessionary financing with conventional export financing to produce low interest rates. It has been and is being aggressively used by some of Canada's competitors in many bidding situations, and it was felt necessary to provide Canadian firms funds to match the credit mixte terms being offered by foreign governments.

Signings to a maximum of \$900 million over the next three years will be made available through the Export Development Corporation, a Crown corporation which provides export financing assistance to firms in all regions of the country.

The Minister of State for Trade, the Honourable Ed Lumley, explained that up to now foreign competitors, who have had a credit mixte backing from their governments, had a clear advantage over Canadian firms who were otherwise competitive in price, delivery, quality and service. In spite of repeated attempts by Canada and other like-minded industrialized countries to negotiate an international agreement to restrict the use of concessional financing, certain countries have persisted in using it. The Minister, however, underlined Canada's intention to continue to press for such an agreement.

To meet present realities, the Government is making this financing assistance available to Canadian firms on a matching basis, when it is clear that their major competitors are resorting to this form of export subsidization.

June 3 is Census Day

On June 3, 1981, Statistics Canada, Canada's official statistics gathering agency, will launch its twelfth decennial census. Approximately 39,000 census agents will cover about 9.4 million kilometres to gather precise information on Canada's over 8 million households.

Canada's Statistics Act requires that every Canadian respond to the questions asked during the census in order to ensure that the information gathered be as precise and extensive as possible.

Census statistics have been an invaluable source of information for Canadian businesses, principally in the following ways: to forecast demand and potential sales; to determine the best locations for retail outlets, manufacturing plants and other business activities; to determine market penetration; to evaluate manpower availability; and to guide publicity and sales campaigns.

Capital expenditures by business to rise again

Business capital spending will increase approximately 19 percent in 1981, according to Statistics Canada. Contributing significantly to this growth will be expenditures in oil and gas wells, which are expected to rise 19.7 percent. The spending increase in this industry group, while impressive, is well below the 42.2 percent increase recorded last year. The same is true for metal and non-metal mining; expenditures will rise almost 37 percent in 1981, which is smaller than the 1980 increase of 52 percent.

One of the most impressive expenditure increases will be in pipelines, especially natural gas pipelines, which Statistics Canada expects to reach 147.7 percent.

Overall spending in manufacturing industries, which rose 28 percent in 1980, will increase again in 1981, but at a slower



One of the most impressive increases in capital spending will be on pipelines.

rate of 23 percent. Leading the list of industries that will increase spending are chemicals (47.6 percent), paper and allied products (40 percent), petroleum and coal products (148.9 percent) and transportation equipment (19.6 percent).

Spending in the trade, financial and commercial sector is expected to rise almost 15 percent and in non-residential construction, nearly 18 percent. Expenditures in housing construction could increase 12 percent in 1981.

An invaluable source of information

Foreign businessmen, who are interested in investing in Canada, can obtain a wealth of information and advice on the Canadian economy and government policies from Canada's trade representatives abroad, members of the Trade Commissioner Service. The trade commissioners are often the foreign investor's first "port of call" because their primary task, which is to assist Canadian exporters, requires that they have a thorough knowledge of Canada's economy in all its facets, including its industrial structure and policies, markets, regional characteristics, employment and financing.

The trade commissioner can provide information and material about relevant government policies and programs, such as general or specific incentives to industry or the requirements of the Foreign Investment Review Act, and he can usually provide contacts in Canada for other more specialized kinds of information.

The long history of the Trade Commissioner Service, which is the oldest specialized foreign trade service, gives it the experience, depth and continuity to provide this kind of assistance.

Throughout its nearly 90 years of operation, export market development and assistance have continued to be the primary concern of the trade commissioners. But in the wider service to Canada's industrial development, they have also been attentive to the two-way flow of investment. Considerable economic changes in Canada over the years have led to new or changed activities on the part of trade commissioners.

As far as foreign investment is concerned, an earlier policy encouraging the establishment of branch plants, which contributed to the development of Canada's industrial base, was replaced by a policy favouring more selective investment consistent with Canada's maturing economy.

With their close ties to the business community in Canada and abroad, trade

commissioners are well placed to assist that flow of investment. Their intimate knowledge of both the foreign investor's market and the Canadian market enables them to explain similarities and differences to the investor, while their ready access to economic, industrial and commercial information can be invaluable in the investment decision.

Moreover, an extensive network of contacts throughout Canada, broadened a few years ago to include access to provincial as well as federal contacts, can provide the investor with information he needs on everything from tax laws to industrial incentives.

Because of the strategic location of the trade commissioner offices in Canadian embassies and consulates abroad, this assistance and information can be made available to investors in their own country and often in the very city where they have their headquarters. And, once established in Canada, the investor can count on the trade commissioner service to assist in the export of the products of his Canadian plant.

Quebec's new economic landscape

by Michel Nadeau

Quebec's economy has usually been portrayed as a blend of traditional manufacturing and natural resource production. However, the Quiet Revolution of the early 1960s, which was an essentially social phenomenon, caused a wave of entrepreneurship which in turn has led to the remarkable transformation of the province's economic landscape.

In an age when energy resources are growing scarce, Quebec is one of the few regions in the world where energy production will increase. In fact, the province's production of energy will double by 1985, largely on the strength of its output of hydro-electricity which, in oil equivalent, will swell from 131,200,000 barrels a year to 243,000,000. This is a conservative estimate given for the partial hydro-electric development of James Bay. The only way that figure could not be reached would be if the rivers feeding James Bay ceased to run. The strategic importance of James Bay is that much greater when one considers the price stability of that energy source which is not subject to the volatility of international cartels or the vagaries of international politics.

With 15,000 megawatts of power in place and the possibility of adding another 25,000, Hydro-Québec, the public corporation responsible for the production and transmission of electricity in the province, can offer some of the best rates available to North American consumers of electricity. For example, on March 1, 1980, industrial consumers in New York paid \$33.99 per 1,000 kilowatts, in Chicago \$18.96 and in Toronto \$14.42; in Quebec, they paid \$13.10. The difference for the residential consumer was even greater. In spite of its low rates, Hydro-Québec has the distinction of being the most profitable corporation in Canada, its 1979 profits reaching \$746 million. With only 6.3 million inhabitants spread over 1.5 million square kilometres, the province can use its immense hydro-electricity resources to good advantage as a tool for economic and industrial development. Montreal, the province's largest city and one of North America's leading cities, provides industry access to 85 million consumers within a 1,000 kilometre radius, another plus when one takes into account the rise in the price of fuel and thus transportation costs. That is, of course, the flip side of the energy coin.

Much has been said about the political debate related to Quebec's future in the Canadian federal system and the resulting tensions. While this debate has been very real, Montreal is, among North American cities, one of the least affected by social and racial tensions, something which is too often ignored by the media and others. Another fact that the political debate has overshadowed is the solid per-

formance of Quebec's economy in recent years.

The Economic Council of Canada recently pointed out that, with the exception of Alberta, Quebec is the only province where productivity did not decrease over the last 6 years. It has thus escaped a trend that has prevailed in much of the industrialized world. It can also claim to have had one of the lowest rates of labour-cost increases over the last 3 years, costs per unit of output rising only 6 percent a year. Another important element of the province's economic performance has been capital investment, which has increased over 13.6 percent a year since 1970. Quebec has had the best provincial real economic growth record over the last 5 years at 16.6 percent a year, discounting inflation. Growth in 1981 is forecast by the Conference Board to reach 1.4 percent, a respectable rate given current national and international economic circumstances. Another indicator of the province's economic strength is its record of job creation which totalled 180,000 over the last three years.

This kind of economic performance is never accidental. An important underlying factor is major public works related to projects such as the Olympic Games and the James Bay hydro-electric project, which represent billions of dollars of stimulus for the economy. Currently, work has begun on the establishment of a \$1 billion distribution network that will make natural gas available to virtually every part of Quebec. In addition, there are strong possibilities that about \$2.5 billion will be spent to improve the productivity of Montreal's six refineries, a timely project given that the province will continue to rely on hydrocarbons for approximately 50 percent of its energy needs.

Another target for major investment is the province's forest industry, which has undertaken a \$2-billion plant modernization program to be carried out over the next 5 years. Such investment is vital to Quebec retaining its position as the world's leading newsprint producer and maybe increasing its current 17-percent share of the world market. In addition to the modernization program, whole new pulp and paper production centers are being created through the joint efforts of government and industry. Different firms are trying to imitate the success of the Donohue Saint-Félicien complex, built

Michel Nadeau is the financial editor of Le Devoir, one of Canada's most prestigious daily newspapers.

north of Quebec City in 1978, which proved to be highly profitable from day one. Currently, Donohue Normick is constructing a newsprint plant whose production will be based on woodchips supplied by sawmills in Abitibi, a region in the northwest of the province.

This dynamic modernization and expansion program is designed to help the industry face the very serious challenge presented by the fast-rising forest products industry in the South of the United States. Industry leaders are optimistic that their efforts will be rewarded and that forest products will continue to account for a major part of Quebec's exports.

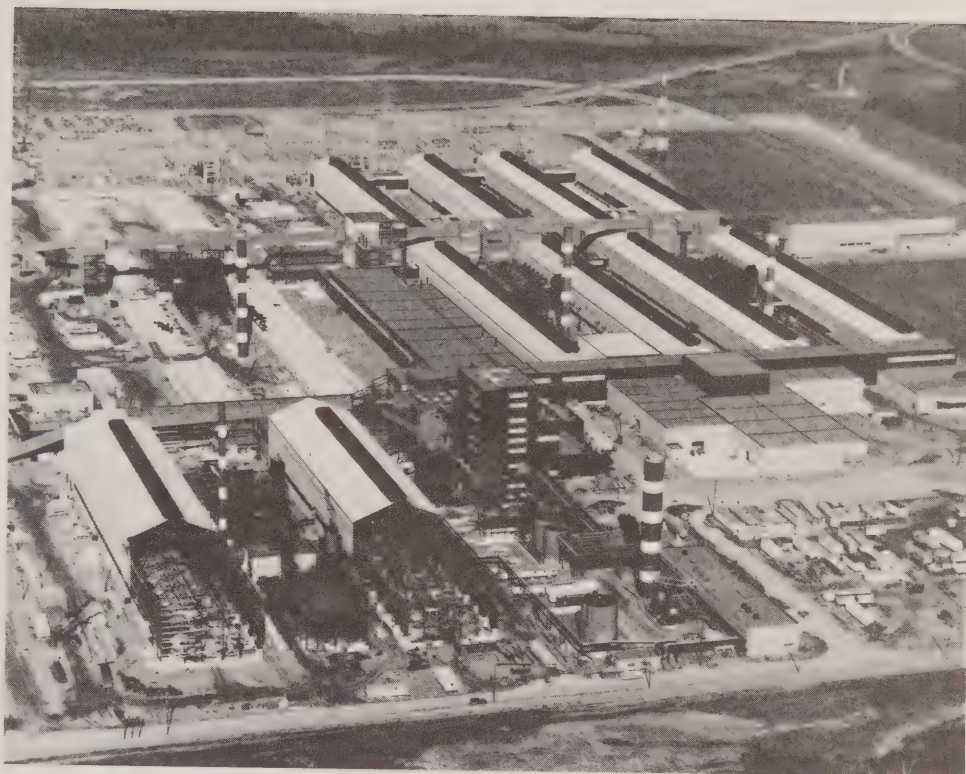
World demand for many of Quebec's abundant mineral resources continues to be very strong. One interesting development has been the rebirth of the province's gold mining industry. The spectacular rise in gold prices has been more than a boon to speculators: it has led to the opening of 10 new gold mines in Abitibi. Further price increases would likely intensify activities in this industry.

Other resource industries of the province have been well served by rising international prices, in particular copper and zinc which in large part are processed in Quebec. The Noranda Group, an important player in the mining industry, made important discoveries of these minerals last year and is expanding its Rouyn-Noranda processing plant which will be equipped with state-of-the-art technology.

Not all of Quebec's mining industries have enjoyed such good fortune. The asbestos industry, for example, has been hurt by less than firm markets in recent years and the reputation of the mineral has been damaged by repeated reports of health hazards associated with its use. In an attempt to stimulate a greater degree of processing of the mineral in the province and to contribute to resolving some of the industry's problems, the Government of Quebec acquired an interest in the industry. A research center on asbestos, a third of whose world production comes from Quebec, has been established. It recently developed a new technology for the recovery of residues. In spite of current problems, asbestos will continue to be in demand as an important and in some areas irreplaceable construction material.

Another mineral that has had its share of problems of late is iron ore, largely as a result of the international slump of the steel industry. Nevertheless, steps are being taken to ensure that the province's producers are well-poised for taking advantage of international recovery. Sidbec, Quebec's major steel producer, has entered into an agreement with two of the world's largest steel producers, U.S. Steel and British Steel, giving it access to U.S. and European markets, which it will serve from the port of Sept-Îles on the St. Lawrence River.

In addition to these and other mineral resources such as titanium, columbium



Grande Baie, in Northern Quebec, is the site of Alcan Aluminum's ongoing expansion program, valued at approximately \$500 million.

and uranium, Quebec has major deposits of basic construction materials such as sand, gravel and stone to which the construction industry has ready access at very competitive prices. It has been estimated that costs of these basic materials in Quebec and Canada are approximately 40 percent cheaper than costs for similar materials in the United States. With the introduction of new European technology and the improvement of technology in the province, Canada's three major cement firms have made considerable progress in penetrating the U.S. market from their Quebec base.

At first glance, one would not expect Quebec to have much of an agriculture and food industry, with its soil frost-laden 200 nights a year. Therefore, it is surprising to find out that the province's degree of food self-sufficiency is 60 percent, up 9 percent over the last 5 years. More intensive production systems, a significant reorganization of grain production (wheat, corn and barley) and considerably larger animal production have not only increased self-sufficiency, but have diversified the agricultural economy which, until recently, was in great part concentrated on dairy farming. Not that this process has been at the expense of the dairy industry. It is still the single most important source of revenue for the province's farmers. Much of Quebec's milk production is processed into butter, a wide variety of common and exotic cheeses, and yogurt, which supply local markets as well as markets throughout Canada and the United States. An increasing proportion of Quebec's agricultural output is being ex-

ported. A case in point is pork: Quebec has become Japan's most important foreign source of that product.

Fishing has become a \$60-million-a-year business in Quebec, which has benefited immensely from the Canadian Government's decision to establish a 200-mile offshore economic zone. The value of the catch has increased over 100 percent in the last three years. The Government of Quebec has launched a number of technical and financial assistance programs for the province's fishing industry.

But Quebec is more, so much more than simply a producer of natural resources. Quebec's manufacturing sector is mature and becoming increasingly diversified. The processing of natural resources is understandably one of the priorities of the provincial government's industrial strategy, as stated in its 1979 industrial development policy paper, *Bâtir le Québec* or Building Quebec. Whether it be public policy or private initiative, the fact remains that manufacturing has steadily increased its share of the \$70-billion gross provincial product, which currently stands at 23 percent. The value of new investment in manufacturing increased in three consecutive years from 1977 to 1979: the first increase of 4 percent was followed by increases of 8 and 15 percent. In 1979, these investments were valued at \$1.5 billion. Quebec's 30 percent share of manufacturing in Canada is second only to that of Ontario.

One of the most exciting recent developments in that sector is Alcan Aluminum's \$500-million investment in new plants in Grande Baie at a time when

Japanese and European aluminum producers are having trouble keeping their plants running as they labour under the heavy burden of oil-price increases. Alcan's production is based on cheap hydro-electricity which it generates at facilities the company built years ago. In oil equivalent, the cost of the energy used by Alcan is an incomparably cheap \$1 a barrel. This comparative advantage has attracted the interest of foreign aluminum producers and has convinced one firm, Pechiney Ugine Kuhlman, to establish a plant in the province.

Given Quebec's low population density — four inhabitants per square kilometre — transportation and especially transportation equipment has been a significant industry. The leading manufacturer is MLW-Bombardier, which has built upon early successes in snowmobiles to become a major mass transit equipment producer. The firm's LRC train (light, rapid, comfortable) is now being used by Amtrak, the U.S. rail transportation system and the company will be building commuter trains for major cities throughout North America, adding weight to its already impressive export record in locomotives.

While the Bombardier record is impressive, the success story of the 1980s may belong to another Montreal firm: Canadair, one of Canada's three largest aerospace companies, has developed and is producing what promises to be one of the most successful business jets in recent memory, the Challenger. Even before the prototype's certification by Canadian and U.S. transport authorities, Canadair had sold well over 100 copies of the jet. Sales have now passed the \$1 billion mark and successful derivative designs have been developed. While the Challenger rates as the firm's prize product, it continues to market a solid line of water bombers (CL-215) and could draw significant benefit from offset work related to Canada's F-18 fighter aircraft program.

Another highly successful Montreal aerospace firm is Pratt and Whitney, a subsidiary of the U.S. corporate giant United Technologies. Pratt and Whitney is Canada's largest manufacturer of aero-engines. Its engines propel thousands of airplanes of varying types and sizes in over 100 countries. The company recently announced plans to invest tens of millions of dollars in the production of its world famous PT-6 and PT-7 engines. Pratt and Whitney is one of two firms left on the Canadian Government's "short list" for a contract to carry out a major frigate-replacement program for the Canadian navy. Two of Quebec's three shipbuilding yards, which have associated themselves in the contract bidding with Pratt and Whitney, hope the firm will win the contract.

Indeed, Quebec's shipbuilding industry has had problems in recent years. The principal yards have had to adapt to changing circumstances by diversifying

their operations. Two of the three yards have proven themselves to be particularly adept at doing so. Marine Industries Limited has undertaken the production of large turbines and rail cars, and Davie Shipbuilding successfully concentrated on the production of huge floating rigs or platforms used for offshore oil exploration.

Quebec's manufacturing sector comprises a wide variety of high-technology industries. Two examples of companies in this field are Canadian Marconi, a major producer of telecommunications equipment and CAE Industries, which has made itself an international reputation for the design and production of flight simulators. It should be pointed out in passing that government has played an important support role in technological research and development. Programs of both the federal and provincial governments have provided the kind of technical and financial assistance necessary to help firms like CAE Industries and Canadian Marconi remain world-competitive.

The policy of the provincial government, which in principle is the same as that of governments right across the country, is to support the initiative of private industry. Occasionally, state-owned but autonomously-run corporations undertake joint ventures with private firms in major projects, thus furthering development objectives and lightening the risk-burden which such projects represent for private firms. An excellent example of such a joint venture is a consortium called Pétromont, which combined the resources of Gulf Oil, Union Carbide and the Société Générale de Financement (SGF), the industrial development arm of the provincial government. SGF provided the financial input necessary for creating the consortium, which has rationalized Montreal's petrochemical industry, considered a cornerstone by the government for the development of an industrial complex based on petrochemicals. Another joint government-industry venture was in mining, involving Teck Corp. of Vancouver and the Société Québécoise d'Exploitation Minière (SOQUEM). The object of the venture was to develop a rich deposit of columbium. Called Niobec, the joint venture company has been successful and has been one of Teck Corporation's most profitable investments.

Over the years, both the federal and provincial governments have developed a wide variety of technical and financial support programs for industry. Mr. Ladislav Madarasz, Vice-President of the Canadian branch of the Banque Nationale de Paris and a man known as a shrewd analyst of Quebec and Canadian economic realities, had the following to say recently about these programs:

"The Canadian system of industrial programs is one of the most if not the most thorough system in the industrialized world. It involves nearly 100 federal and

provincial plans. . . If it can be said that the abundance of programs makes the system rather complex, it can also be said that the system is extremely advantageous, especially in view of the fiscal environment which is highly favorable to new investment. I could point to several situations where government assistance by means of subsidies, equity participation, loans and so on can cover anywhere from 50 to 80 percent of the costs of investment."

Montreal's Economic Initiatives and Development Commission has established "single-stop" counters to assist investors and businessmen to identify government programs that are relevant to their particular needs.

To describe Quebec's economy solely in terms of large companies or major projects would be to give a very distorted picture indeed, for there is an all important second dimension: the heart of the economy is made up of small- and medium-sized businesses (SMBs). With the exception of Quebec's immense energy projects, much of the character and performance of Quebec's economy is explained by the dramatic rise of SMBs over the last decade or so. While space constraints make a detailed profile of this phenomenon impossible, the following example of an SMB will serve to illustrate the situation. Ivaco, a family business established 10 years ago in the small town of Marieville, 60 kilometres from Montreal, has seen its volume of business grow from \$11 million the first year to over \$500 million in 1980 and the company now runs 35 plants in Canada and the United States.

To grasp the full significance of the SMB phenomenon, one has only to visit one of the many industrial parks situated between Montreal and the U.S. border. Proportionally speaking, Quebec has more SMBs than any other province and their strategic location near the United States is clear evidence of the importance and accessibility of that market. Though the great majority of SMBs are Canadian-owned and controlled, a growing number of foreign-controlled SMBs are establishing themselves in the industrial parks of the Beauce, the Eastern Townships and greater Montreal. In many cases, European firms enter into joint ventures with Quebec firms, the former seeking a foothold in North America and the latter the latest in technology.

Sociological and financial factors account in large part for the rise of the SMB in Quebec: first, French-speaking Québécois have acquired a taste for business and, second, financial institutions have developed whose principal objective is to provide the capital needed for industrial development.

Though the Québécois orientation toward business has only been noticeable over the last decade, the seeds of this trend were sown long before that. Quebec's so-called Quiet Revolution in the

early 1960s did more than change the economic landscape of the province: it created a completely new educational system that had none of the old biases against technical, scientific and business fields. New values were thus inculcated in a generation of Québécois who sought to increase the role they played in the economic destiny of the province. It could be said that few things are respected more today in Quebec than proven business acumen. No one could have foreseen 25 years ago that in 1980 fully one-third of all students in Canada's business schools would be Québécois.

A sign of these changes was the creation of the *Caisses d'entraide*, which are a kind of credit union involving local entrepreneurs who make loans to SMBs on the strength of members' savings. Since 1976, the assets of these credit unions have grown 30 percent a year, a rate unequalled by any other financial institution in Canada. Another element of the financial side of the SMB story was the Government of Quebec's decision in 1978 to encourage the creation of regional economic development corporations or SODEQ by means of income tax deductions. Quebec taxpayers can deduct directly from their income taxes the equivalent of up to 25 percent of their investment in a SODEQ, which makes risk capital available to new businesses. The success of this program is shown by the fact that no less than 12 regional development corporations have been created since 1978.

The province's businesses, be they large or small, can count on a highly-developed transportation infrastructure. An extensive network of highways exists which is interconnected with all major North American systems and businesses have ready access to modern and sophisticated port facilities. The Port of Montreal currently handles 50 percent of all maritime trade in Eastern Canada, up 15 percent in the last 5 years. Furthermore, Montreal is the gateway to the St. Lawrence Seaway, which provides large ocean-going vessels access to the Great Lakes and the heart of industrial North America.

Air transportation services are also highly developed. Mirabel, Montreal's new international airport, is one of the three largest airports in North America. A considerably large area around the airport has been set aside for firms who wish to use aircraft as their principal means of transportation and, unlike most North American airports, Mirabel can operate 24 hours a day.

Though it tends to be overshadowed by Toronto, Montreal is an important financial center. The city is one of North America's major centers for insurance companies. The Montreal Stock Exchange is the oldest and second largest in Canada and all the major banks have either their headquarters or large representative offices there. Three banks — the National Bank, the Mercantile Bank and BNP Can-



Bombardier-MLW's line of subway cars is one of many kinds of product contributing to the growth of Quebec's transportation equipment industry.

ada — are constructing large headquarters in Montreal, as did one of Quebec's most important financial institutions, the *Mouvement Desjardins*, which consists of 1,500 credit unions with total assets valued at more than \$13 billion. Indeed, the construction cranes have reappeared in Montreal's skyline as 12 new skyscrapers are beginning to take shape. IATA, the International Aviation Transport Association, is scheduled to occupy new offices soon and Alcan Aluminum has undertaken the construction of a new tower to house its staff. Alcan's project will blend the old with the new as its tower will stand behind some of Montreal's finest examples of Victorian residential architecture, which will be renovated as part of the project.

The province also has a vigorous tourist industry. Its two major cities, Montreal and Quebec, both offer an interesting blend of European and North American architecture, food and entertainment. New conference facilities were built in Quebec City recently and others are under construction in Montreal between Old Montreal and the business district. Extensive fishing, camping and skiing facilities stretch the province's tourist season year-round and a recent decision by the U.S. Government, to the effect that the same income tax advantages will exist for U.S. businessmen whether they hold their conferences in the United States or Canada, will provide further stimulus to an already busy industry.

Though Quebec's overall economic per-

formance has been impressive in recent years, the province will have to deal with some difficult problems. Some traditional industries (textiles, clothing, furniture and leather) owe their survival to tariff policy. The essential problem these industries have is aging equipment and uncompetitive technology, a problem experienced by their counterparts in other industrialized countries. Representatives of government, business and labour have met regularly in an effort to find solutions and improve the viability of these "soft industries", by trying to identify new products, to intensify research and development, to encourage innovation, to improve industrial relations and to find ways of penetrating new markets. There are a few promising signs of recovery, especially in the furniture industry which is currently running at full capacity. The exchange rate of the Canadian dollar, which was in the 83 to 85 cent U.S. range in 1980, has helped to give their products an extra competitive edge.

Quebec's economy will be increasingly outward-looking in the next few years. Industries such as aerospace, aluminum, telecommunications and transportation equipment all depend on export markets for growth. With the lowering of tariff barriers, the favorable exchange rate of the Canadian dollar and the development of innovative product lines that are, in most cases, world-competitive, the 1980s might be seen a few years hence as the dawn of a new age in the history of Quebec's economy.

Some practical advice on Canada's foreign investment review process

by J.J. Tennier

Canada's foreign investment review process was never intended to be and is not a confrontation between foreign investors and the Canadian bureaucracy. It is a screening process whose success depends heavily on effective consultation and cooperation between investors and the officers of the Foreign Investment Review Agency. This article clarifies the review process and presents practical advice to investors, which can help them to avoid unnecessary problems and to lighten their administrative burden.

All applications are processed the same way no matter where they come from, what their size is, who submits them or what industry they are related to. As soon as a notice outlining an investment proposal is received by the Agency, it is scrutinized by the Compliance Branch to determine whether or not the proposal is reviewable and whether the notice contains the information prescribed by the Foreign Investment Review Regulations. If the proposal is deemed reviewable, it is passed on to the Assessment Bureau for evaluation based on the benefit criteria outlined in the Act. Frequently, during this stage, information additional to that contained in the notice is sought through contacts with the applicant and consultations with appropriate federal departments. The notice is also circulated to the province or provinces significantly affected by the proposal for their views and comments. Once all the necessary information has been assembled, the case is then referred to the Minister, together with an assessment by the Agency of the perceived effects of the investment in terms of the five assessment criteria. If the Minister concludes that the investment is likely to result in significant benefit to Canada, he must make a recommendation to the Governor in Council or Cabinet that the investment be allowed. If not, he must so inform the Agency, which then informs the applicant accordingly. The applicant then has the opportunity to make further representations. When those representations are completed, the case is referred to the Minister a second time for a final decision as to what his recommendation will be.

Over six years experience with the administration of the Act have shown that foreign investors can do a number of things to help themselves avoid unnecessary complications or delays. Some steps should be taken before investors apply and others relate directly to the way in which they prepare their applications and deal with the Foreign Investment Review Agency.

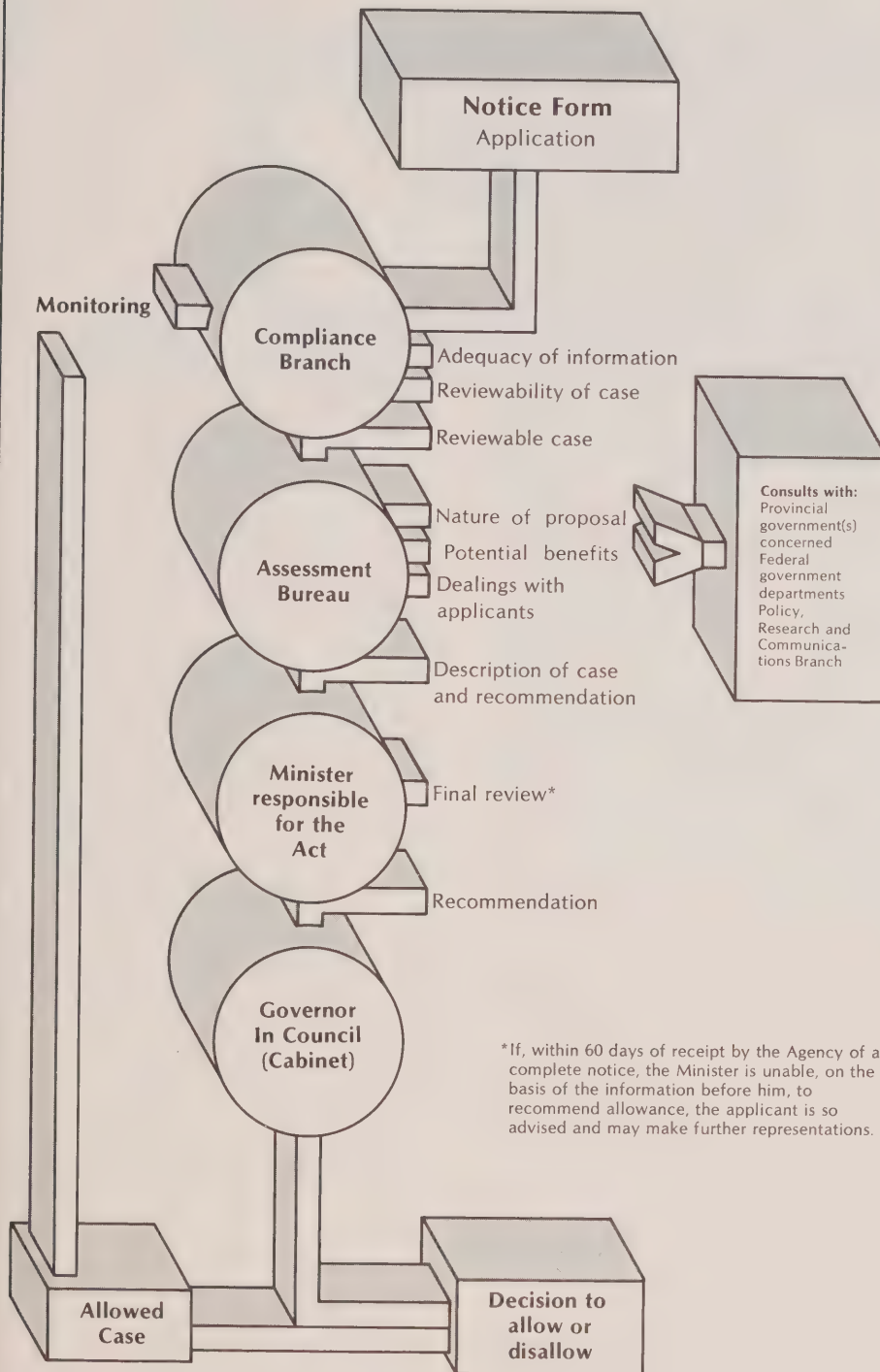
Since no two investment proposals are the same, information given by an agency like FIRA cannot possibly cover all types of investment proposal or investor. That is why FIRA has made frequent public statements to the effect that investors should consult the Agency even before submitting their investment proposals. In doing so, investors can gain a clear understanding of Canada's foreign investment review policy, particularly as it relates to their unique circumstances. They can also receive practical advice on the review process itself, including details such as information requirements of the Act and the best way to describe their investment proposal to meet the assessment criteria and thus pass the test of significant benefit.

Somewhat related to the above and an elementary step before applications are submitted is that investors should inform themselves adequately about the Act and the review process. FIRA has published and makes available documentation and information kits that deal with virtually every aspect of Canada's foreign investment review policy. Once the investor has studied this information and has consulted officers of the Agency, he should be ready to file his application without any worry that the review of his proposal might be delayed by missing information or some other complication.

The application itself is, of course, critically important. The heart of the application is the description of the investment proposal. Given that the assessment criteria are pivotal elements of a proposal's allowance, the description of the investment plan or proposal should be structured directly in relation to the relevant criteria. Accordingly, if the investment can be expected to improve productivity or technological development, the applicant should establish that fact in his investment proposal. In effect, the investor should point out to the Government how he perceives his investment to be beneficial to Canada by referring directly to the criteria specified in the Act.

The author is Deputy Commissioner of the Agency. He is directly responsible for the Agency's Assessment Bureau and is thus well-placed to give investors practical advice on the review process.

Review Process



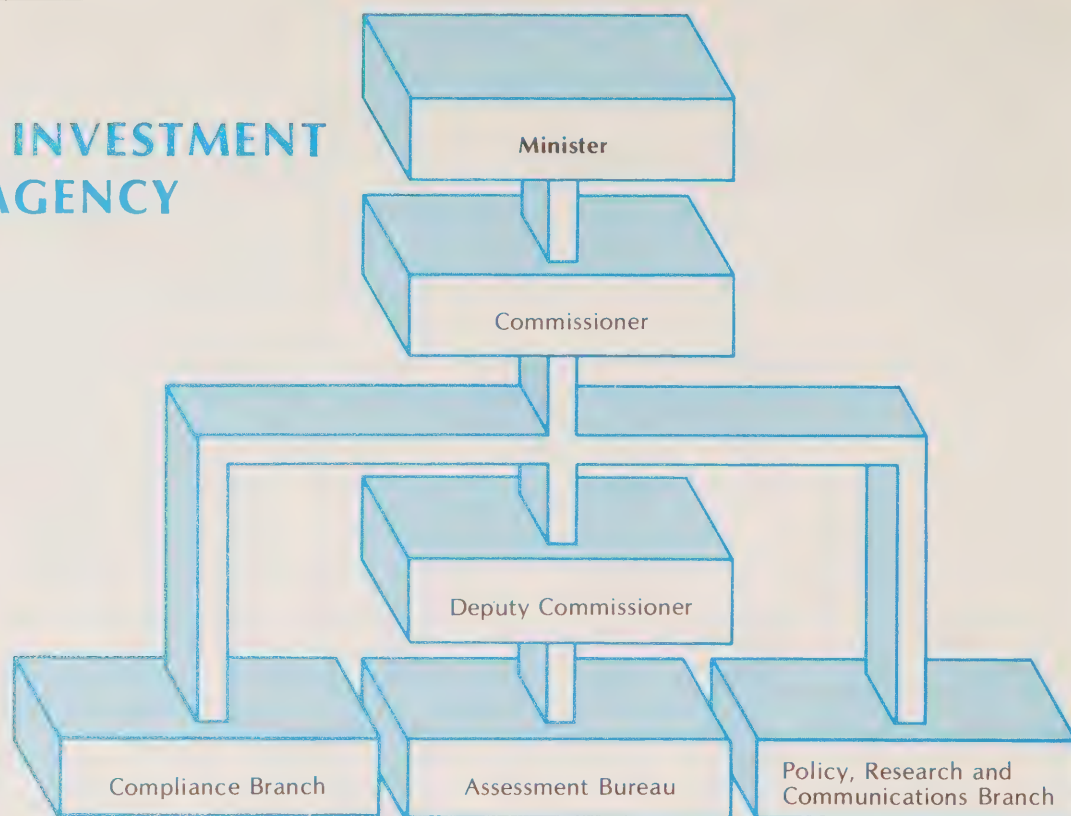
Closely related to the investment plan are commitments or undertakings which investors can give on things such as Canadian participation, research and development, the manufacture of parts in Canada, sourcing of goods and services, exports and so on. It is often easier for an investor to show significant benefit when he agrees to make specific commitments. Investors usually know enough about their initial investment and business intentions to make limited commitments. As for undertakings related to the later conduct of the business, they can be made conditional on the success of the acquired or new business or on specified market expectations.

The Government expects investors to fulfill all commitments because they are taken into account in the determination of likely significant benefit. On the other hand, the Government recognizes that the circumstances in which those undertakings are given can change for many reasons, often beyond the control of the investor, with the result that he cannot fulfill his undertakings. If that does occur, the Government is always willing to renegotiate mutually acceptable alternatives and, indeed, has done so on a number of occasions.

In addition to consulting the Agency, informing himself adequately and effectively structuring his application, the investor can contribute to the smooth functioning of the review process by ensuring that a representative who has decision-making power deals directly with the Agency. Otherwise, when officers of the Agency suggest changes to the proposal, much time-consuming communication must take place between the representative and the decision-makers at head office. When decision-makers deal directly with the Agency, changes can be agreed to on the spot.

Over the years both the Agency and the Government have sought ways of minimizing the costs to applicants associated with the review process and the time taken to obtain decisions. One improvement was the amendment of procedures related to small-business proposals, those involving the acquisition or establishment of a business with gross assets of less than \$2 million and fewer than 100 employees. Early in 1977, the Government introduced an abbreviated form of notice, requiring no more than two or three pages of information, for proposals which are not likely to have a considerable effect on the economy. It was decided that, within 10 days of receipt of the simplified notice and after consultation with appropriate federal departments and provincial governments, the Minister would decide whether or not to recommend allowance. If the Minister was not satisfied that the proposal would likely be of significant benefit on the basis of information at his disposal, he would request that the applicant provide more information by filing a second, more complete notice using the regular forms.

FOREIGN INVESTMENT REVIEW AGENCY



While this change has streamlined the process for the majority of small-business proposals, it has given rise to the occasional problem, principally because the circumstances surrounding certain small-business proposals necessitate more information than can be provided in the abbreviated notice. Investors are understandably surprised when asked to fill out the standard application forms for what are, for all intents and purposes, small-business proposals. What follow are five reasons for this exceptional procedure.

The first reason is that it is occasionally extremely difficult, if not impossible, to conclude that a given proposal will bring significant benefit to Canada on the basis of the information provided in the abbreviated notice. This is especially true when there is a significant and readily identifiable cost associated with it, such as the loss of Canadian equity participation with no apparent offsetting economic benefits. Frequently, these benefits become clear only after supplementary information is provided by the applicant.

Second, the size of the applicant can change the implications of that kind of proposal, principally because small-business proposals from large businesses can have an impact on the economy which, over time, is proportionally much greater than that of the initial investment. The Agency must analyse that potential thoroughly and, to do so, usually requires more extensive information than is provided in the short form.

Somewhat related to the second reason is the cumulative effect of a series of

small transactions by a large foreign investor. A situation could conceivably develop where an applicant has been allowed two or three acquisitions of small businesses and returns to the Agency for a third or fourth only to discover that the Government is not prepared to allow it within 10 days. The reason could be, for example, the proposed investment's cumulative effect on competition. Or it might be decided that the applicant, because of the growing impact of his investment on the Canadian economy, should be giving commitments as to how will conduct his business in Canada which are in proportion to the size of his cumulative investment.

A fourth reason for requiring that the standard form be filed is the nature of certain industries and the priority which the Government of Canada has placed on them. These are sensitive industries of the economy related to the print and electronic media, energy and certain services such as data processing and other computer-related services. Other areas that have received special attention are insurance, trust, loan and sales finance companies and other financial intermediaries.

The existence of serious alternative Canadian buyers is a fifth reason for requiring that additional information be provided by the applicant so that clear benefit can be established. Though this means extra work for the foreign investor, it is to his advantage because it provides him the opportunity to attain an equal footing with alternative buyers, something that would be impossible if the Government

had to make a decision solely on the information provided in the short form.

Some small-business transactions can fragment an industry sector and result in inefficiency. If such is the initial assessment of the Government, it may want to have more thorough investment plans so that it can carry out a more thorough analysis of potential costs and benefits. And, in the process, the Agency will probably want to suggest to the applicant ways in which his proposal can be improved or modified so as to overcome the concerns.

Whether proposals involve large or small businesses, they must all go through the same review process and must all show likely significant benefit to Canada before the Government can allow them to proceed. The wise investor will obtain all the pertinent information possible and will clear up any questions he may have before submitting his application. He will thus be in a position to structure his investment plan in a way that clearly shows significant benefit to Canada according to the five assessment criteria that are specified in the Foreign Investment Review Act. He will also make sure that the representative he chooses to deal directly with the Agency has the authority necessary to negotiate with officers of FIRA and make the decisions required with a minimum of interruptions for consultation with head office. As was stated at the beginning of this article, the review process is indeed a process of consultation and cooperation between investors and officers of the Foreign Investment Review Agency.

New opportunities in Canadian banking

by W.T. Mitchell
and D.L. Derry

A major objective of the new Bank Act, which became law on December 1, is to increase competition in Canadian banking and, at the same time, enable the federal government to exert increased control over banking-related operations of non-Canadian banks. Accordingly non-Canadian banks will be permitted, commencing this year, to incorporate Canadian banking subsidiaries and engage in the same banking activities as Canadian chartered banks. Certain restrictions will prevail; but it is evident that the next few years will witness intense competition as foreign banks establish an increasingly strong presence in Canada, while Canadian banks expand further into areas not previously open to them at home and continue their expansion abroad.

The principal features of the Canadian banking system were established in 1934 with the creation of the Bank of Canada, Canada's central bank, and its nationalization in 1938. Though the members of the Bank's board of directors are all appointed by the Government and the capital stock is owned entirely by the Government, traditionally the Bank has been given a relatively free hand to formulate and carry out monetary policy. This relative independence has been particularly important when monetary policy is designed to combat inflation and can be unpopular. It is clear, however, that the Government, through the Minister of Finance, is ultimately responsible for monetary policy, which means that the course pursued by Canada's central bank must conform with the views of the Government. In cases of disagreement, the Government has the power to issue directives which the Bank must follow.

The Bank of Canada thus manages Canada's monetary policy in consultation with the Minister of Finance. It does so by regulating credit and currency within limits reflecting the Government's economic strategy. In addition to formulating fiscal policy, the Minister of Finance supervises the affairs of Canada's chartered banks; he does this through the office of the Inspector General of Banks.

The chartered banks are the third key element of Canada's banking system. In the recent past, commercial banking in Canada has been carried out by federally chartered banks with broad share ownership, extensive branch networks and assets approaching \$300 billion. The largest of the chartered banks, sometimes referred to as the "big five", account for 90 percent of the assets of banks in Canada and are among the world's largest. The big five include the Royal Bank of Canada, the Canadian Imperial Bank of Commerce, the Bank of Montreal, the Bank of Nova Scotia and the Toronto-Dominion Bank.

An evolving situation

The right to use the word "bank" as part of the name of an organization was confined to those organizations that had received Canadian Government charters to operate as banks. In recent years, however, Canadian and foreign financial insti-

tutions have been expanding into the fringes of the banking business. As it became evident that the new banking legislation would encourage competition, the number of participants and the size of their operations in this fringe area increased dramatically.

Until now, foreign banks have operated as representative offices, which referred loan business to offices outside Canada, or as financial subsidiaries, which were often provincially incorporated and therefore not subject to federal government control. While these financial subsidiaries have not been permitted to take deposits, they have been able to make loans funded through Canadian short-term paper guaranteed by the parent banks. These operations have grown to the extent where some 90 foreign banks now have offices or operations in Canada and assets exceeding \$9 billion. The largest of these is Citibank with assets of about \$2 billion and offices in several Canadian cities. While most of the foreign bank operations are centered in Toronto, a number can be found in Montreal. The large natural resource development projects and the growth of Western Canada have also drawn several foreign banks to Calgary and Vancouver.

The new Bank Act

While Canadian operations of foreign banks will henceforth be much more closely supervised, they will have opportunities to compete on an equal footing with Canadian banks. Representative offices will be required to register with the Inspector General of Banks and limit their services to a liaison role between clients of the bank and the bank's other offices. If foreign banks wish to operate more extensively, as most of them will, they must apply for incorporation and licensing as a "Schedule B" bank. Schedule A banks are domestic banks in which no shareholder owns more than 10 percent of voting stock. Following approval of their application by the Governor in Council or Cabinet and the issuing of letters patent, the Minister of Finance issues a licence to the bank to carry on business. The Minister of Finance has sole discretion in renewing banking licences, which, in the first five

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years, are valid for periods of not longer than one year and, after five years, are valid for periods of not longer than three years.

The issuance of letters patent and the licence to foreign banks will depend on three basic considerations. The first is that there must be solid evidence of the financial strength of the new bank or its parent bank. In addition, a "letter of comfort" is required, which states that the parent bank has ultimate responsibility to support the Canadian subsidiary. Second, it is important that foreign banks demonstrate that they will contribute to competitive banking in Canada, including increased price competition and banking services. The third consideration is the treatment that Canadian banks receive in the principal banking jurisdiction of the applicant. Foreign banks will have to produce evidence from their regulatory authorities at home that operating conditions for Canadian banks are equally favourable. Given this consideration, one might expect that the Government may seek to ensure a broad national representation of foreign banks in Canada, which could be accomplished by restricting the number of banks from any one jurisdiction and placing a ceiling on each bank's authorized capital in order to limit their individual size. Also to be considered is the concentration of ownership of the parent: a wide distribution of ownership of the parent is considered more desirable than a narrow concentration of ownership, unless the owner is a government.

The Inspector General of Banks' office has issued "A Guide for Foreign Banks", which describes the procedures required to become a bank. Members of his office have been meeting with foreign bankers to discuss their applications, and any foreign bank considering incorporation in Canada would be well advised to obtain a copy of the guide. Personal meetings with the Inspector's staff are essential and should be arranged before an application is prepared. Such meetings should save the investor time in the application process by ensuring that the documents filed supply appropriate information. It should be noted that foreign bank subsidiaries are to be governed by the Bank Act rather than the Foreign Investment Review Act, which governs foreign direct investment in other areas.

Requirements for foreign banks

Foreign bank subsidiaries that are licensed to operate in Canada will be treated the same way as domestic banks in the fields in which they compete, including the following: borrowing money, entering into conditional sale contracts, lending with or without security, entering into acceptances and guarantees, acting as a financial agent, issuing credit cards and providing certain limited data processing services. Two areas of activity that are now specifically permitted as a result of

the amendments are factoring and financial leasing. Foreign bank subsidiaries are free to open as many branches as they wish, the only condition being that each branch opening must be approved by the Minister of Finance.

Foreign bank subsidiaries, however, will be subject to certain restrictions. They must be adequately capitalized and conservatively financed to ensure stability, and their growth is to be controlled. For instance, they must have authorized share capital of \$5 million or more, of which at least half must be paid-in. In addition, domestic assets (Canadian dollar and foreign currency loans to Canadian residents) may not exceed 20 times the authorized capital. Foreign bank subsidiaries will be prevented from dominating Canadian banking because the aggregate domestic asset value of all foreign bank subsidiaries is limited to 8 percent of the value of all domestic assets of banks. The 8-percent share is currently valued at \$15 billion, which is \$6 billion greater than the current value of domestic assets of all foreign banks in Canada.

Another restriction is that all banks operating in Canada are generally limited to owning 10 percent of Canadian companies, and for Schedule B banks this restriction is extended to foreign companies. "Grandfather" rules allow foreign banks to continue owning investments in certain companies held before passage of the legislation.

Outlook

Not all foreign bankers are convinced that the opportunities created by the new Bank Act justify the cost involved. A large number of new banks with greater capitalization than they might desire will be competing for very similar segments of the market. In addition, many of the foreign bank subsidiaries that have been active in Canada over the last decade may find that the new rules, which effect all banks, leave them more restricted than before. For instance, they will now be subject to the same reserve requirements as domestic banks, which will increase their borrowing costs. Furthermore, some foreign banks that have until now been very active in financial leasing will find that they, like all banks, are barred from parts of that market such as automobile fleet leasing.

In spite of these restrictions, it is clear that most foreign banks that are active in Canada intend to incorporate as Schedule B banks. Those organizations already having banking-related operations have little choice: they must either become banks or restrict the funding of these operations since they will not be permitted to issue short-term paper with parent-bank guarantees, the major source of funds at present, unless they are banks.

Foreign banks that have limited their Canadian presence to representative offices do not have as clear an option. While they lack the advantage of an

established operating base, most appear to have concluded that some kind of Canadian presence is important. Many believe that the 8-percent ceiling on foreign banks will be reached fairly quickly and that they may not have another opportunity to enter Canadian banking unless they establish their position. Many have also identified particular parts of the Canadian economy in which they could excel and are developing plans accordingly.

No doubt some foreign banks may be considering simply continuing to operate through the medium of a provincially incorporated finance type company. They should be aware, however, that the Bank Act has a number of provisions that will make it difficult for foreign banks to operate outside the parameters of the Act. Presumably, the Government would have little difficulty restricting future expansion, if it concluded that the Act was being circumvented.

The existing branch networks of Canadian banks and their related high costs make retail banking unattractive to all but a few foreign banks which might open a limited number of branches in the hope of capturing the business of certain highly concentrated ethnic communities. Most, however, are planning to have a limited number of offices and to cater to the lower cost wholesale market, that is corporate loans funded largely through the short-term paper market.

The following are some of the activities that seem to hold the greatest promise for the foreign bank subsidiaries. The first is participation in syndicates to finance resource development. Canada's needs for resource-related capital over the next 10 years are expected to exceed \$250 billion, much of which must come from foreign sources. A second activity would be to improve the servicing of Canadian subsidiaries of customers they have in their home jurisdiction. Some foreign banks will no doubt specialize in financial services to certain industries such as forest products, mining or oil and gas. A fourth activity area is import-export financing or the use of their expertise in financing trade between Canada and their own countries. Foreign banks that are already well established in leasing can be expected to provide strong competition in this area. Not to be forgotten is foreign exchange trading as a means of hedging risks of currency fluctuations and possibly increasing profits.

While many foreign banks appear ready to seize the chance to establish themselves in Canada and develop their portion of the market, it is not clear that all foreign banks now represented in Canada will avail themselves of this opportunity. Everyone agrees, however, that, before the decade is over, banks from Europe and Asia, as well as banks from the United States and South America, will become members of what has hitherto been an exclusively Canadian club.

A resurgent Canadian aerospace industry

by David Godfrey

Canada's aerospace industry is establishing a solid reputation of increasingly impressive proportions in specialized fields where world markets are growing fast for short take-off and landing airplanes, business jets, small turbine engines and electronic systems. The 1970s were a decade during which the industry gained substantial experience in export markets and it is anticipated confidently that the 1980s will see a significant increase beyond Canada's present 7 percent share of world aerospace trade.

Striking changes have taken place in the Canadian aerospace industry since the trauma of the Canadian Government's cancellation of the Arrow fighter program early in 1959. Abandoning this centerpiece program — which included new engine, missile and electronics systems — threw out of gear and into oblivion a large segment of the industry and thus jeopardized Canada's aspirations of attaining world status as an aircraft producer. Many experienced engineers and production managers were forced to find work in U.S., British and other industries that were only too happy to welcome them. Devastated by the shock of the Arrow cancellation, the industry was dealt a severe blow with Avro Aircraft, Orenda Engines and many supplier companies virtually wiped out. But perspicacity, pertinacity and innovation in other areas of the industry assured continued evolution.

Rather than try to compete with well-established producers of large commercial and military aircraft, Canada's industry concentrated increasingly through the 1960s on the development of specialty-type aerospace products such as short take-off and landing (STOL) utility aircraft, airborne surveillance drone systems, small engines, electro-mechanical aircraft systems and a wide variety of components. During the 1960s the industry evolved from being mainly a supplier of military products to an export-oriented producer of commercial and civil products. By 1966, exports already accounted for the largest part of sales and, by 1970-71, commercial and civil products dominated the industry.

In the 1970s the industry initiated a great number of innovative projects. De

Havilland, a consistent leader in the industry, proceeded in 1972 with the design, development and manufacture of two pre-production DASH 7 50-passenger turboprop commercial STOL transports on the strength of Canadian Government support. The support included an option for the Government to buy de Havilland from its parent company Hawker Siddeley, an option which the Government exercised in June 1974. In January 1976, the Government bought Canadair from General Dynamics, thus further rationalizing the industry and increasing Canadian ownership and control. Three months later, Canadair acquired the rights to develop and build the LearStar 600, a business jet of advanced design which it later renamed Challenger.

The DASH 7 and the Challenger have international recognition as leaders in their class and both have led to successful derivative designs: the DASH 8, a 36-passenger twin-turboprop STOL transport for commuter airlines; and the Challenger "E", an extended version of the Challenger with more powerful engines. Equally important is the development of the new PT7 turboprop for the DASH 8 by Pratt & Whitney Aircraft of Canada, an engine that has also been chosen by foreign manufacturers, as has been the case for the PT6 turboprop and JT15D turbofan engines which Pratt & Whitney produce and which power a wide variety of aircraft in 120 countries.

But the evolution of Canada's aerospace industry in the 1970s reflected much more than the successful development of aircraft and engine manufacturers. Also involved were the design and

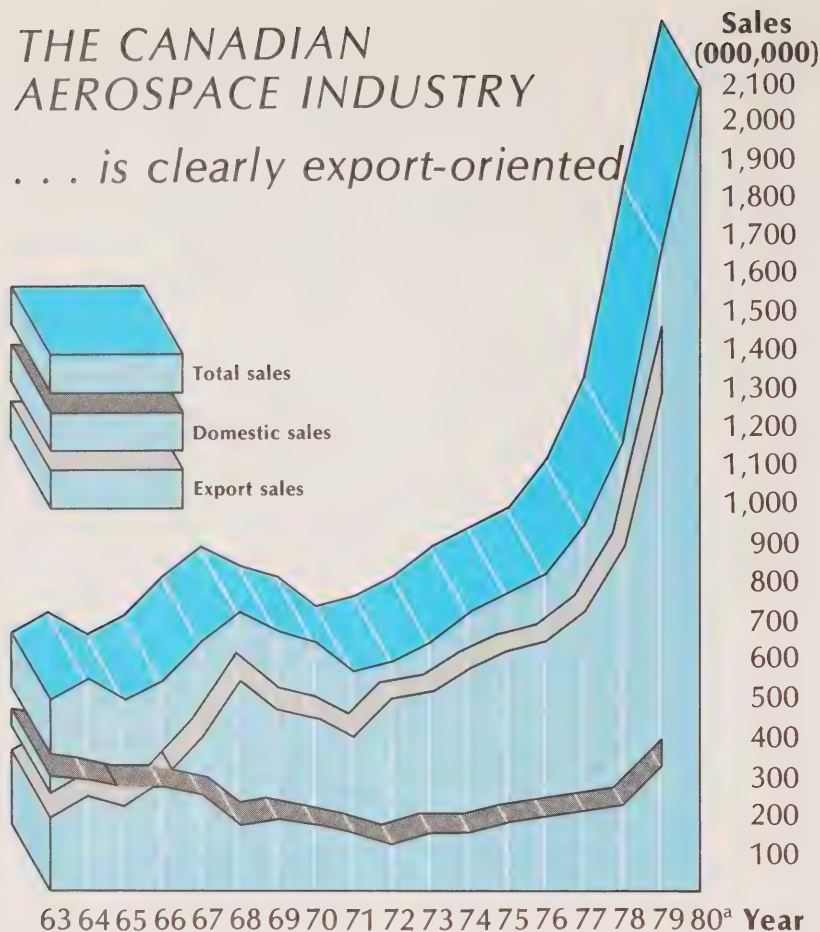
Canada's major aerospace companies

Activity	Name	Location
Airframes and parts	Canadair	Montreal
	de Havilland Aircraft of Canada	Toronto
	McDonnell Douglas Canada	Toronto
Aero-engines and parts	Pratt & Whitney Aircraft of Canada	Montreal
Space-related products, airframe components, repair and overhaul	SPAR Aerospace	Toronto
	Bristol Aerospace	Winnipeg
Avionics	Litton Systems Canada	Toronto
	Computing Devices	Ottawa
	CAE Electronics	Montreal

The author, who is a professor at Ryerson Polytechnical Institute, in Toronto, has 30 years experience in the aerospace industry both in Canada and in Great Britain.

THE CANADIAN AEROSPACE INDUSTRY

... is clearly export-oriented



development of electronic fuel-control systems, flight simulators, magnetic anomaly detectors, reconnaissance drones, satellite navigation systems, mechanical strain recorders, inertial navigation systems, communication satellites, and remote manipulator systems for the U.S. Space Shuttle orbiter vehicle.

It is obvious, therefore, that the Canadian aerospace industry concentrated successfully on special product lines and proved its ability to innovate and market some of the world's most sophisticated technology. This is a far cry from the dog days of 1960 when many predicted, in the wake of the Avro Arrow's demise, that Canada's fate was to be nothing more than an exporter of brains and an importer of technology.

The structure of the industry

Given the variety of products and the wide range of companies involved, the Canadian aerospace industry is by no means a monolith. A 1978 task force study, prepared by representatives of business, labour and government, describes the industry as having three tiers: the first comprises companies that have an integrated ability to design, develop, manufacture and market complete aircraft and aero-engines; the second, companies that can manufacture aircraft, space and aero-engine sub-systems, including some design and development capability; and the third, manufacturing companies that are generally small businesses providing machining, sheet-metal, casting, heat-treatment, plating and other services, many of which are also engaged in non-aerospace activities.

Though the task force group described the industry in that way, it took great pains to explain that Canadian aerospace business relationships must be seen in a North American perspective, rather than a strictly Canadian one. Although second- and third-tier companies supply first-tier companies, much of their work must be done for U.S. prime contractors if they hope to have viable businesses. One example given by the task force is that of a second-tier Canadian manufacturer of landing gears that may supply a Canadian first-tier aircraft manufacturer, but also must supply prime contractors in the U.S. market to have the volume of business necessary to stay in business, let alone thrive. Thus, the Canadian aerospace industry is an integral part of the North American industry whose success is predicated on its ability to penetrate the U.S. and other markets.

While the Canadian aerospace industry is concentrated in Ontario and Quebec, it is present in every region of the country. In terms of value of production, the latest figures available (1980) show Ontario leading (\$940 million), followed by Quebec (\$939 million), Western Canada (\$131 million) and the Atlantic Provinces (\$9 mil-

... dealing in civil and commercial goods.



SOURCE: Transportation Industries Branch, Department of Industry, Trade and Commerce, Ottawa

^a Preliminary figures

lion). Of some 42,000 workers employed in the industry, 46 percent are in Ontario, 45 percent in Quebec, 8 percent in Western Canada and 1 percent in the Atlantic Provinces. Major aircraft companies, especially first-tier firms, have been established in large metropolitan areas such as Montreal and Toronto to have ready access to highly-skilled labour and experienced managers and professionals. Their presence in these areas has attracted various supporting industries which receive sub-contracted work from the major firms and also provide specialized technological services. Western Canada and the Atlantic Provinces have second and, mostly, third-tier companies who provide repair and overhaul services as well as limited manufacturing of sub-contracted parts. Of the 97 companies listed as full members of the Air Industries Association of Canada, 23 had sales of \$5 million or more and 9 major companies accounted for well over half of total sales.

Government-industry relations

The Canadian Government's support of the aerospace industry is, in many ways, governed by the same objectives as those given by other governments to their aero-

space sectors: to ensure the maintenance and development of what is a capital-intensive high-technology industry; to create employment opportunities requiring highly technical and scientific, managerial and production skills; and to support an export-oriented industry that makes a significant contribution to the balance of payments and that provides a considerable domestic market for a variety of supply industries.

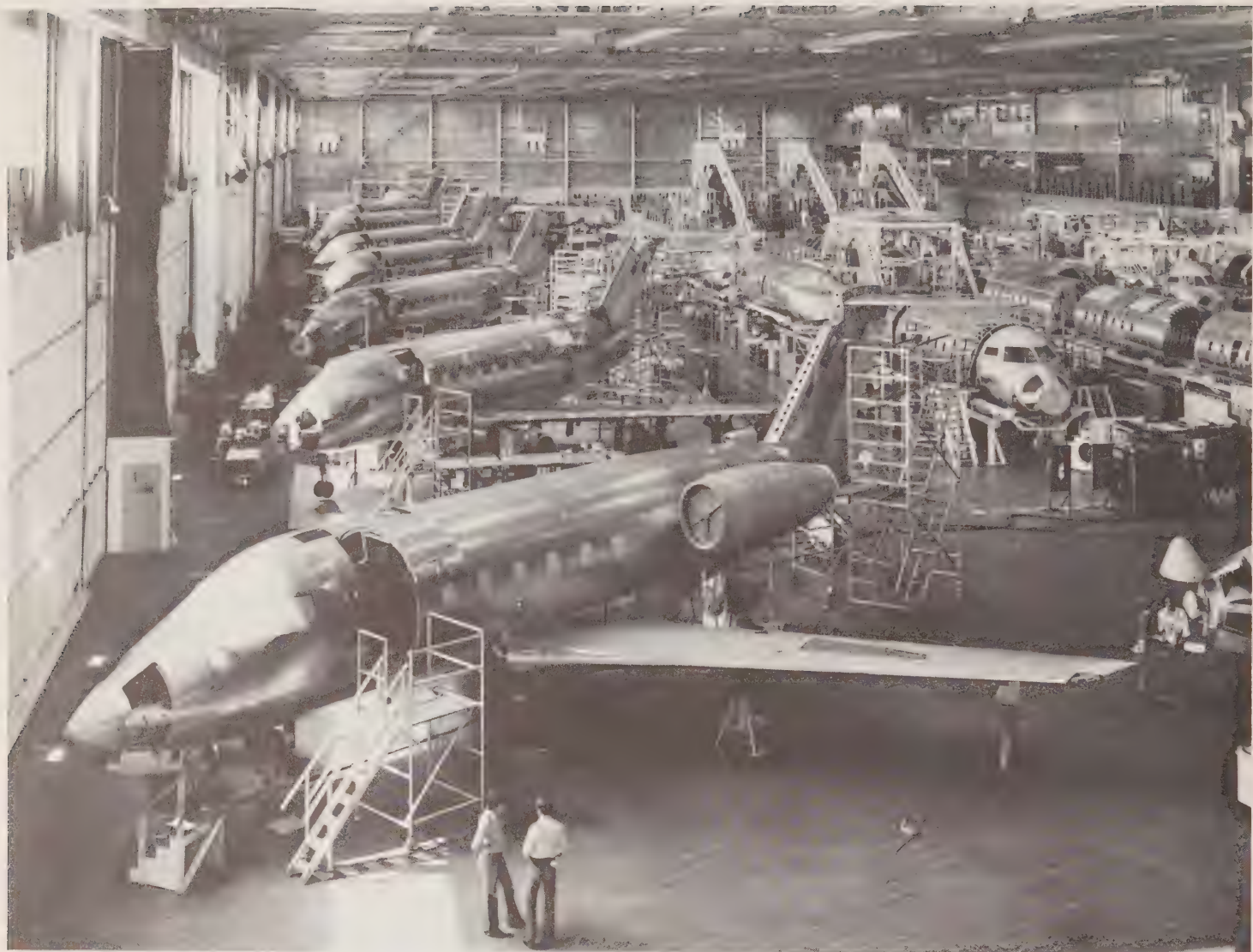
Government encouragement to the industry is provided directly through a variety of programs including the Canada/U.S. Defence Production Sharing Agreement (DPSA) and the Defence Industry Productivity (DIP) program, which provides a 50-percent grant on research and development and 100-percent funding of capital investment, half of it repayable over five years without interest. The Enterprise Development Program has also encouraged innovation. In addition, the Export Development Corporation supports foreign purchases of a variety of Canadian products, including aerospace, by means of insurance, loans, guarantees and other services. Government procurement policies are also designed to support the aerospace industry in a way that is consistent with Canada's international obligations

under the General Agreement on Tariffs and Trade. There is also indirect support to the industry in the form of offset benefits that are built into major government purchases such as the Long Range Patrol Aircraft and the New Fighter Aircraft programs.

While the support provided by the Government seems substantial, aerospace industry spokesmen maintain that it falls short of what other countries provide to their aerospace industries. It is, however, very hard to agree or disagree with this claim, given the variety of data available and the difficulties involved in comparing one country's figures with another's. One thing is certain: the dialogue and cooperation between the aerospace industry, through the Air Industries Association of Canada, and the Government, principally through the Department of Supply and Services, the Department of Industry, Trade and Commerce, the Department of National Defence, and the Ministry of State for Science and Technology, will continue because the aerospace industry is one of the foundation blocks for Canada's high-technology future. What is more, according to the Air Industries Association figures, each \$1 of assistance has, on average, resulted in \$24 worth of sales.

Skilled technicians assemble precision gyroscopes that are key elements in Litton inertial navigation systems. Some components are machined to one millionth of an inch.





More and more orders are being received for Canadair's highly successful business jet, the Challenger.

Foreign ownership

Data are hard to find on the degree of foreign control and ownership in the Canadian aerospace industry because they are usually given on an industry sub-group basis and, even when so given, are not up to date. The common figure used is that the industry is 50-percent foreign owned. The 1978 sector task force study, however, leads one to conclude that 50 percent is a little high. Pratt & Whitney is now the only foreign-controlled company among the three major first-tier firms. The task force estimated that over 50 percent of the second-tier firms were foreign-controlled, whereas most in the third tier were Canadian-controlled.

One interesting feature of the foreign-controlled firms is that many have been given "world product mandates" by their parent companies, making them responsible for the research, development, manufacture and marketing of certain product lines. The fact that most companies in the

industry live or die on the basis of their export performance means that world product mandates are, in most cases, not only desirable but necessary features of foreign-controlled aerospace companies in Canada.

Outlook

The industry will have to face some serious challenges. Being so heavily dependent on exports, it must continue to meet very tough international competition in a business whose rate of technological change is exponential. To meet international competition, Canada's aerospace industry will have to continue improving its productivity and pouring hundreds of millions of dollars into research and development. There is the ever-present challenge of the financial dangers implicit in the manufacture of high-cost high-risk products that have long pay-back cycles and that are subject to the uncertainty of

government purchasing policies and decisions, tariff and non-tariff barriers, inflation and technological obsolescence.

In spite of all these factors, industry spokesmen seem very optimistic. The Air Industries Association of Canada has forecast that total sales will pass the \$4 billion mark by 1984, approximately \$3.3 billion of which will be exports, and that employment will reach 55,000. The wide range of products, from complete aircraft and engines to miniaturized electronic components, provides the kind of balance necessary for the industry to live through the business cycles of various sub-groups of the industry. Canadian leadership in certain product lines — short take-off and landing craft, business jets, small turbo-prop and turbofan engines, flight simulators, navigation systems, control systems and specialized electronics — indicates firmly that the industry will continue to grow rapidly well into the 1980s, provided that the necessary additional financial commitment is made.

The Alaska Highway Gas Pipeline: not your everyday shopping list

by Robert Irvine

Approval by the Government of Canada in July 1980 of the southern Canadian sections of the Alaska Highway Gas Pipeline again focussed public attention on the considerable economic activity that this project will generate in Western Canada. What has perhaps not been as widely recognized are the very substantial benefits that the project will bring to other regions of the country.

Described as the largest private capital project ever undertaken in the world, the pipeline will transport natural gas from Prudhoe Bay on the North Slope of Alaska to markets in California and the midwestern United States. The system is being constructed to deliver about 2.4 billion cubic feet (bcf) per day to U.S. consumers with the potential for handling an additional 1.2 bcf per day of Canadian Mackenzie Delta gas, which may be injected into the system near Whitehorse, Yukon Territory for delivery to markets in Canada.

The pipeline will involve 4,780 miles of 56, 48, 42 and 36-inch pipe, approximately 2,030 miles in Canada and 2,750 miles in the United States. Construction will account for just part of the estimated \$31.4 billion needed to cover capital costs. Other major costs include a conditioning plant and, of course, pipe, which in itself accounts for 40 percent of the costs. Over \$8 billion will be spent on the Canadian portion and about \$23 billion for the U.S. portions, which will include Alaska (730 miles) and areas south of the 49th parallel (2,020 miles).

The Canadian portion of the line is the responsibility of Foothills Pipe Lines (Yukon) Limited of Calgary. This company is 50 percent owned by Nova, an Alberta Corporation (formerly the Alberta Gas Trunk Line Company Limited) also based in Calgary, and 50 percent owned by Westcoast Transmission Company Limited of Vancouver. Given the complexity and scale of the work to be undertaken, Foothills Pipe Lines (Yukon) has in turn established five subsidiary companies which are wholly responsible for the design, construction and operation of the line in the Yukon Territory, northern British Colum-

bia, southern British Columbia, Alberta and Saskatchewan.

Construction of the southern Canadian portion of the line in southeastern British Columbia, Alberta and southwestern Saskatchewan, involving 530 miles of pipe at a cost of \$662 million, will permit the initial export of some 1.14 bcf a day of Alberta gas to the United States. Within two weeks of the Government's approval, work began on the western leg of the Phase 1 sections with members of the Kootenay Area Indian Council, on contract with Foothills, clearing brush and offloading pipe. The western leg is now completed and it is expected that work on the eastern leg will be finished by the end of this year.

An immense shopping list

The pipeline builders' requirements for material and labour to complete the project, starting with the first sections, can justifiably be called the ultimate shopping list. A guidebook for prospective suppliers and contractors published by Foothills calls for everything from accounting services and adhesives to winches and wire. In fact, over 200 major types of equipment, material and services are needed. What is most impressive about the list, is the sheer size of the undertaking and the potential benefits which it represents for regions and industrial sectors right across the country.

In May 1980, Foothills awarded contracts for supply of all of the pipe for the Canadian portion to two Canadian companies, Stelco Inc. of Hamilton, Ontario and Interprovincial Steel and Pipe Corporation Limited (Ipsco) of Regina, Saskat-

Robert Irvine is an Analyst with the Ministry of State for Economic Development. The views expressed are his own and do not necessarily reflect those of the Government of Canada. The assistance of the Northern Pipeline Agency, Foothills Pipe Lines (Yukon) Limited and the supplier companies mentioned is gratefully acknowledged.

The Alaska Highway Gas Pipeline Project



chewan, who offered the most competitive bids. The contract involved an initial procurement of 80 percent of Foothills' requirements, holding 20 percent in reserve to be earned by the companies over the life of the project. Of the initial order, 55 percent was allocated to Stelco and 45 percent to Ipsco. These are the largest single contracts ever handled by those companies.

Initially, Stelco is supplying both finished pipe from its two mills at Welland, Ontario, as well as providing skelp, which is a form of steel plate, from its Hilton Works in Hamilton for conversion to pipe at its plant in Camrose, Alberta. For the mainline portions of the project, those following Phase 1, all of Stelco's pipe will be produced at Welland from skelp manufactured at Hamilton or its Lake Erie Works at Nanticoke, Ontario.

Steel coil produced by Ipsco is being used to fabricate large-diameter, spiral-welded pipe in its Regina plant and is also being shipped to Ipsco's mills in Edmonton for pipe manufacture there. Both the federal and Saskatchewan governments supported an earlier capital plant expansion effort by the company in 1978.

The benefits to Stelco and Ipsco of the initial pipe order are not limited simply to the large volume of work generated or indeed the major capital expansion carried out by these companies at least in part in anticipation of successfully bidding on that work. The key benefit is that the Alaska Highway Pipeline breaks new ground in its requirement for substantial quantities of high-strength, Arctic-grade, large-diameter pipe, which has led to the development by the steel-makers of a new family of steels suitable for Arctic applications, new inspection techniques and improved manufacturing processes.

The timing of the project has also been beneficial. Foothills' initial order and, in particular, the 300,000 tons of 36-inch and 42-inch diameter pipe needed for the first sections has stimulated activity in the mills at a time when traditional markets such as the automotive sector are soft.

Turbo-compressor equipment, needed to push the gas through the pipe, is another essential item in Foothills shopping list, which was part of the initial orders. Foothills made a preliminary procurement of four turbine-compressor units. Three of these major pieces of equipment will be provided by Cooper-Rolls Corporation of Mississauga, Ontario. As part of this contract, an affiliate, Rolls-Royce (Canada) Limited will produce three 30,000-horsepower gas turbines — the RB211 — at its Montreal plant. Another affiliated company, Cooper Energy Services Limited will manufacture the compressors and assemble and test the completed units at its plant in Stratford, Ontario.

The potential to become a major supplier of components for the turbine-compressor units to be installed along the Canadian portion of the Alaska Highway

Pipeline was a significant factor in an earlier decision by Rolls-Royce to designate its Montreal plant as the sole supplier of the industrial RB211 turbines for sale around the world. Similarly, the pipeline builders' order has contributed to Cooper-Rolls' plan of developing Stratford as the prime source of supply of its Coberra series of compressor units for markets in Canada and abroad.

The other initial turbine-compressor unit is being supplied by Westinghouse Canada Limited of Hamilton. The model chosen by Foothills, the CW-352, has a history going back to 1973 when Westinghouse Canada successfully proposed to its parent that the Canadian subsidiary be assigned world charter responsibilities for the design, development and manufacture of a new family of two-shaft high-efficiency gas turbines. Development work on the project commenced in November 1973 and is continuing. The first units of the new gas turbine line were delivered to customers in 1979, including two ordered for a Petro-Canada extraction facility which feeds ethane to Alberta Gas Ethylene, another member of the Nova family of companies, for its new gas processing plant at Joffre, Alberta.

The world product mandate of Westinghouse Canada in gas turbines in itself has stimulated a \$39 million investment program since 1976, including a new \$30 million components plant in Renfrew, Ontario, the latter being built with \$6.3 million in assistance from the federal Department of Regional Economic Expansion and \$1.6 million from the Province of Ontario. Perhaps most significant in terms of encouraging exports, Foothills' initial order of the CW-352 represents the first opportunity to install the turbine on a gas pipeline. Westinghouse Canada will thus have a working model of its turbine in a new setting which it can show to other potential Canadian and offshore clients.

Valves and fittings are also needed. All major valves and fittings for the western leg of the prebuild were ordered and delivered last summer at an approximate cost of \$3 million. A good example of a firm outside of Western Canada that has benefitted from the project in this field is Uniracor Limitée of Montreal. In 1978, Uniracor received \$6.5 million in assistance from the federal Department of Regional Economic Expansion to build a \$31 million plant (with 200 jobs) at Bécancour, Quebec. Uniracor has in turn established a world-class facility for the manufacture of pipe fittings. Foothills' procurements of Uniracor products for Phase 1 should help the company to penetrate other markets in the United States, Mexico and the Middle East.

Pipe, turbo-compressor equipment, and valves and fittings are just one part of the plethora of materials and equipment needed by the Foothills group. Building a pipeline will create jobs not just in the manufacture of components, but also

in its actual construction (1,325 person-years of work for the first phase alone), in such areas as computer technology, design engineering, environmental assessment and radiography. Other employment opportunities are being created: management, construction and supply of inputs to the pipeline; work provided in turn to secondary and tertiary sub-suppliers; and spinoffs from the \$16 billion in export gas revenues resulting from the pipeline, a substantial portion of which will accrue to Alberta producers and pipeline companies. Not to be forgotten is the multiplier effect which the project will undoubtedly have on the economy. Although estimates vary as to total employment impact, taking everything into account, about 350,000 person-years of work could be generated by the project in Canada. In peak years, this would represent a contribution of close to 1 percent to the nation's GNP.

Beyond the pipeline project

Construction of the Alaska Highway Gas Pipeline will benefit the Canadian economy in a number of ways that are not exclusively related to the project itself, such as: encouraging R&D, spurring capital investment, promoting exports, and establishing new Canadian sources of supply. These are in part a function of stipulations respecting Canadian content and other matters set by the Northern Pipeline Agency, the federal regulatory body charged with overseeing the project. What is perhaps even more significant, however, is the enlightened three-point procurement policy developed by Nova, which Foothills has adopted, and which consists of the following: 1) to acquire the required goods and services on time and on generally competitive terms; 2) to establish a secure base for future domestic supply of goods and services; and 3) to increase participation of Canadian-owned and controlled firms in major Canadian capital projects.

But the Alaska Highway Gas Pipeline raises broader considerations on how Canadians and those investing in Canada can make the most of other major energy investments and mega-projects planned in the 1980s and beyond. A study released last year by the Canadian Institute for Economic Policy underlined the importance of those considerations when it estimated that total energy investments required in Canada will amount to \$210 billion, \$67 billion of which will be spent on equipment.

Perhaps the best comment on the implications for Canadian industry of Foothills' procurements is to point out that the old cliché "everything but the kitchen sink" does not apply in the case of the Alaska Highway Gas Pipeline. A quick review of the "Business Opportunities" handbook prepared by Foothills reveals that seven kitchens, including sinks, will be needed for each 500 to 600 man team along the line.

The canadianization of Brinco

by Alan Darisse

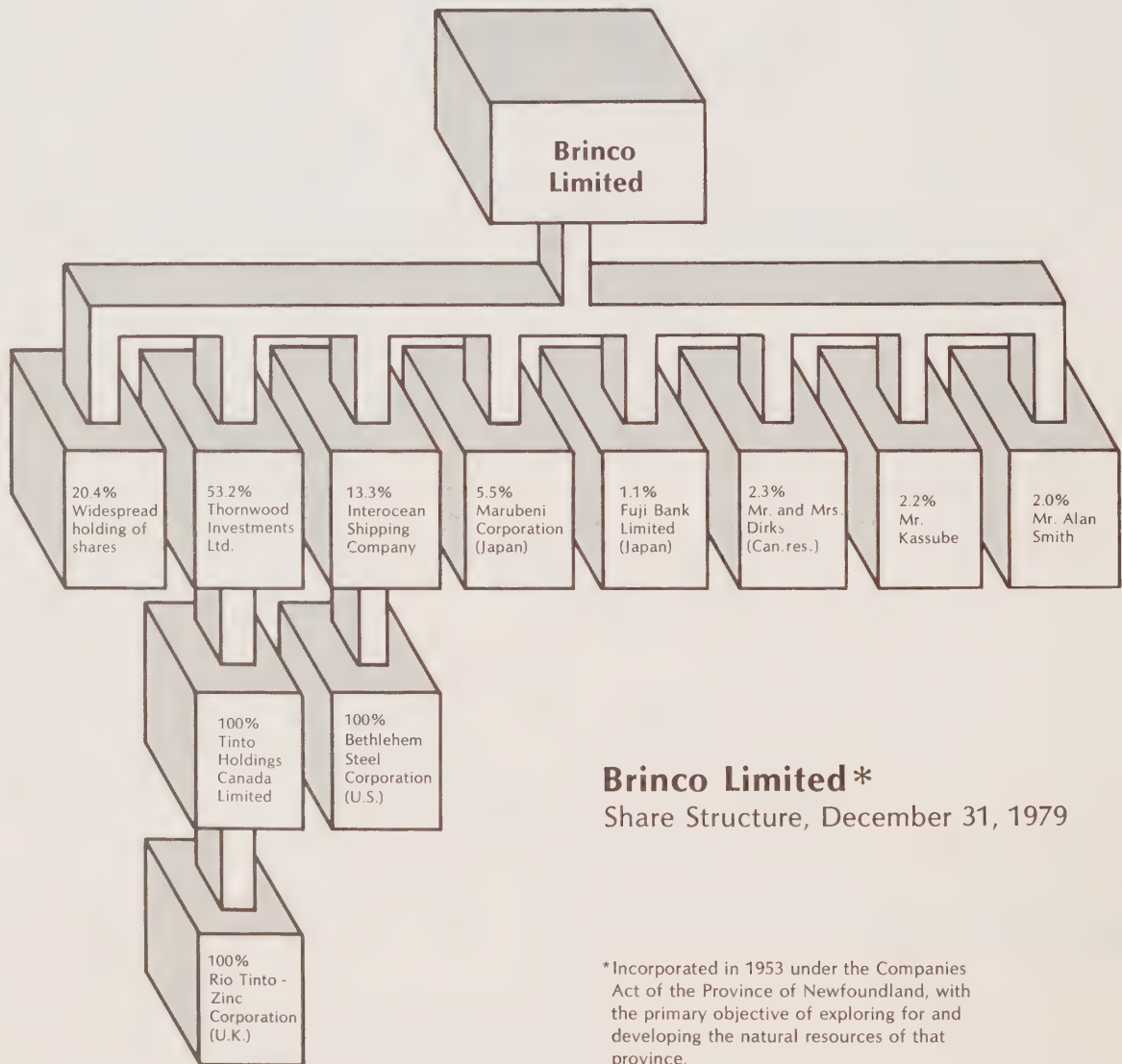
Last November, the Minister responsible for the administration of the Foreign Investment Review Act, the Honourable Herb Gray, announced that he had informed Brinco Limited that, in his opinion, the corporation was no longer a non-eligible person within the meaning of the Act; in other words, that Brinco was now considered a Canadian-controlled company. In the past 10 or 15 years an increasing number of firms have canadianized themselves, as Brinco did.

Brinco is by no means the first foreign-controlled company to have canadianized itself. Several major firms in Canada have taken the steps necessary to ensure that effective control would pass into the hands of Canadians. In fact, it has been estimated that between 1974 and 1979 at least \$2 billion worth of assets were canadianized in this way which, for the corre-

sponding period, was greater than the value of all assets of Canadian-controlled firms that were allowed to pass into foreign hands.

The Foreign Investment Review Act has been cited in one way or another by many of the firms in question since 1975. According to an internal study carried out by the Foreign Investment Review Agency,

*The author is Head of Communications,
Foreign Investment Review Agency.*



*Incorporated in 1953 under the Companies Act of the Province of Newfoundland, with the primary objective of exploring for and developing the natural resources of that province.

there seem to be two dominant FIRA-related reasons for canadianization. The first is a desire to be exempt from the foreign investment review process in the event that firms wish to acquire control of a Canadian business or establish a new unrelated one in Canada. The second is related to undertakings or commitments given by investors whose proposed investments were allowed, according to which they agree to increase the level of Canadian ownership. Brinco's decision to canadianize itself seems to have involved both reasons.

Brinco's canadianization

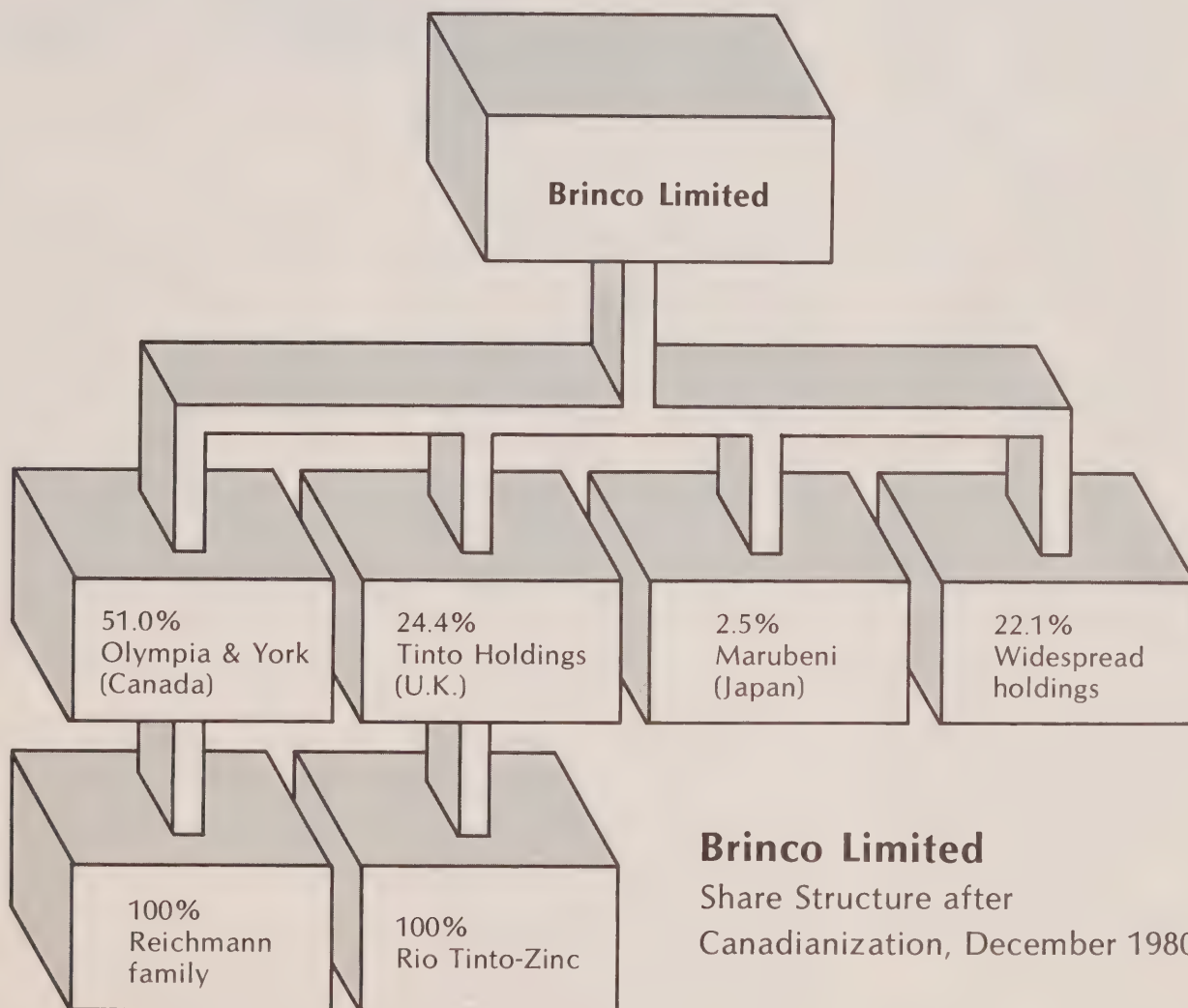
Few firms in Canada can claim to have had as colourful a beginning as Brinco. Some of Canada's and the world's famous personalities were involved in its founding. Among the Canadians were former Premier Joseph Smallwood, Lord Beaver-

brook and Sir William Stephenson, former head of Allied intelligence during the Second World War and subject of the book *A Man Called Intrepid*. Among the internationally famous were Sir Winston Churchill, who was Prime Minister of Britain at the time, and Anthony and Edmund de Rothschild. All these men, especially Mr. Smallwood, played a role in organizing the consortium, known officially until 1971 as the British Newfoundland Corporation Limited, whose primary objective was to develop the natural resources of Newfoundland and Labrador.

From its inception Brinco was clearly a U.K.-controlled corporation which was given almost carte blanche to develop Newfoundland's resources. An agreement with the Province, known as the Principal Agreement, provided the corporation exclusive exploration rights over extensive tracts of land, including water rights. In 1955, Brinco created a subsidiary, British Newfoundland Exploration Limited or

Brinex. That same year an exploration lease granted to Brinco, pursuant to the Principal Agreement and covering vast areas, was assigned to Brinex. Further concessions, covering mineral rights and petroleum, were granted to Brinex in 1957 and 1970 respectively. So extensive were these concessions that in spite of a surrender of considerable portions of the concessions over the years, Brinex still retains rights over approximately 10,400 square kilometres of territory on the island of Newfoundland and in Labrador.

Though Brinco's original objective was mineral exploration and development, its claim to fame was the development, construction and initial operation of the mammoth Churchill Falls hydro-electric power complex in Labrador, which in spite of innumerable political, economic and engineering obstacles was completed within budget and five months ahead of schedule. It has been estimated that 57 million barrels of oil or 22.5 million tonnes of



Brinco Limited
Share Structure after
Canadianization, December 1980

coal would be required to produce an amount of electricity equivalent to what Churchill Falls produces each year.

In 1974 the Province of Newfoundland acquired Brinco's interest in Churchill Falls and its water rights in the province for \$160 million, a transaction that was particularly significant for its effect on the degree of Canadian ownership in the firm. According to the terms of sale, Brinco was required to offer to repurchase any of its shares from the shareholders. As it turned out, most minority shareholders tendered their shares for repurchase, whereas the major foreign shareholders maintained their interest. Canadian ownership, which had over the years reached 40 percent, consequently plummeted to 8 percent. The implications of this decrease took on even greater importance when in 1974 the Foreign Investment Review Act took effect and the Foreign Investment Review Agency was created.

As was the case with a number of other resource companies in the mid-1970s, Brinco was becoming increasingly interested in the oil and gas industry and began to look for a real foothold in that sector. By 1979 the corporation had only managed to gain a modest entry into the industry by means of a 25-percent non-controlling interest in Coseka Resources Limited. That same year, Brinco finally found the oil and gas investment opportunity it had been looking for. The target was a firm called Conuco Ltd.

As a foreign-controlled enterprise, Brinco had to apply to the Foreign Investment Review Agency for government approval of its proposed acquisition of Conuco. By this time, the level of Canadian ownership was only about 7 percent. The firm calculated that the proposed transaction would increase Canadian equity participation to 17 percent. But, in an undertaking which Brinco's two principal shareholders (see chart) gave to the Government, the firm committed itself to increasing Canadian ownership to 40 percent within two years and to 51 percent within five. What was not clear, however, was whether or not 51 percent Canadian ownership meant Canadian control because Tinto Holdings Canada Limited, by far the major beneficial shareholder in Brinco, could conceivably have increased Canadian ownership to that level without forsaking its controlling interest. At the end of December 1979 Tinto Holdings, which is 100-percent owned by The Rio Tinto-Zinc Corporation Limited of the United Kingdom, still held a 53-percent beneficial interest of Brinco shares. The acquisition of Conuco — later renamed Brinco Oil & Gas Limited — which involved a number of other undertakings, was approved.

The corporation, however, wanted to be in a position to grow by way of further acquisitions in the Canadian resource industry, and its management realized that its share structure would necessitate an-



It has been estimated that it would require 57 million barrels of oil to produce an amount of electricity equivalent to what is produced each year by the Churchill Falls hydro-electric complex, which was developed by Brinco.

other application to FIRA and a new round of negotiations if it decided to make a new acquisition. It was reported in the media that Brinco was indeed contemplating such an acquisition early in 1980 which "... could double the size of the company." In fact, such a move was clearly stated in Brinco's 1979 annual report: "Brinco Oil & Gas will be a net user of capital for some years and a first priority in 1980 ... will be the acquisition of significant cash-flow producing assets in the resource sector to support Brinco Oil and Gas Limited and other development activities." Equally important, the annual report went on to say that "Since the activities of non-Canadian companies in the resource sector in Canada will continue to be constrained, a second and equally important priority is that further Canadianization of Brinco take place."

During the first half of 1980, Brinco sought possibilities of selling a large block of its shares to a suitable Canadian corporation. In so doing, the corporation's chief executive officer expected that the transaction "... would facilitate achievement of (its) objective of eligibility for purposes of the Foreign Investment Review Act and pave the way for Brinco to pursue its plan to acquire further oil and gas interests in Canada." Brinco hoped to make an acquisition after or at about the same time as Rio Tinto-Zinc would transfer its controlling interest to a Canadian investor, thus avoiding the FIRA review process.

In the summer of 1980 Brinco found the suitable Canadian corporation it had been looking for. In August, purchase and subscription agreements were concluded between Brinco's major foreign shareholders — Tinto Holdings, Interocean, Marubeni and Fuji — and Olympia and York Developments Limited, a corporation wholly-owned and controlled by Canadians. By means of those agreements, Olympia and York would acquire approximately 51 percent of the voting rights attached to all outstanding shares of Brinco. This, combined with the percentage of shares already controlled by Canadians, would result in over 70 percent of Brinco's voting rights being controlled by Canadians, a large increase from the estimated 23-percent Canadian ownership which existed prior to the transaction.

Brinco submitted these plans to FIRA in September, seeking a Ministerial opinion to the effect that, after the transaction, Brinco would no longer be considered a foreign-controlled company. The Agency and the Minister analysed the plans and concluded that, if carried out, it would be possible to give Brinco a favourable opinion. By October the firm was so advised and, by November, the transaction was carried out and the corporation was officially recognized as being Canadian-controlled. Brinco moved immediately to acquire Cassiar Resources Limited, an important asbestos producer in Western Canada, and in the process canadianized that company.

Capital investment projects in Canada

Manufacturing industries

This list shows major capital spending projects in progress or firmly committed in the manufacturing sector. Except for a few small projects of particular interest, only projects costing over \$10 million are included. Information on these projects has been obtained from press reports. Other sectors will be covered in the next issue of the Foreign Investment Review. This report was prepared by the staff of the Foreign Investment Review Agency with the assistance of the Economics Department of the Bank of Nova Scotia.

Company and project description	Completion date	Cost (\$ million)	Location
British Columbia			
Alcan Smelters and Chemicals Ltd. New carbon paste plant	1982	46	Kitimat
British Columbia Forest Products Ltd. Third newsprint machine	1982	150	Crofton
Sawmill	1981	35	Hammond
Canadian Cellulose Co. Ltd. Pulp mill expansion	1984	250-360	Castlegar
Canadian Forest Products Ltd. Kraft pulp mill modernization	1981	14	Port Mellon
Sawmill modernization	1981	10	Chetwynd
Canadian Occidental Petroleum Ltd. Dome Petroleum Ltd., Westcoast Transmission Co. Ltd. and Mitsubishi Petrochemical complex	1985	2,000	undecided
Cariboo Pulp & Paper Co. Ltd. Pulp mill expansion	1983	19	Quesnel
Crown Zellerbach Canada Ltd. New sawmill	1981	61	Coquitlam
Pulp and paper mill expansion	1982	172	Campbell River
Evans Products Co. Ltd. Expansion, forest products	1986	10	Lillooet
Finlay Forest Industries Ltd. Expansion, pulp mill, new sawmill	n.a.	32	MacKenzie
MacMillan Bloedel Ltd. Newsprint expansion	1981	163	Powell River
Modernize kraft pulp bleaching	n.a.	19	Harmac
New sawmill	1982	60	Chemainus
Paper mill expansion	1982	57	New Westminster
Pulp mill expansion	n.a.	75-220	Nanaimo
Northwood Pulp and Timber Ltd. Pulp mill	1982	300	Prince George
Ocean Falls Corp. Mill adaptations	1981	11	Ocean Falls
Ocelot Industries Ltd. New methanol plant	1982	150	Kitimat
Prince George Pulp & Paper Ltd. and Intercontinental Pulp Co. Ltd. Expansion, under study	n.a.	150-250	Prince George
Quesnel River Pulp Co. Ltd. New pulp mill	1981	80	Quesnel
West Fraser Mills Ltd. Planer mill/sawmill complex	n.a.	20	Chetwynd
West Fraser Timber Co. Ltd. and Daishowa Canada Ltd. New thermo-mechanical pulp mill	1981	70	Quesnel
Western Forest Products Ltd. Plant modernization	1985	300	Port Alice and Woodfibre

Alberta

Alberta Energy Co. Ltd. and Imperial Oil Ltd. Ethylbenzene-styrene plant	1984	300	near Edmonton
Alberta Gas Chemicals Ltd. Methanol plant expansion	1982	140	Medicine Hat
Alberta Gas Ethylene Company Ltd. Second ethylene plant	1984	375	near Joffre
AMF Tuboscope Inc. Coating plant	1981	11	Edmonton
Aquitaine Co. of Canada Ltd. Sulphur prilling facility	1981	10	Ram River
British Columbia Forest Products Ltd. Lumber mill	1981	21	Grande Cache
Sawmill	1982	23	Fox Creek
Newsprint complex	1985	165	Hurdy
Celanese Canada Inc. Methanol plant	1982	250-300	near Edmonton
C-I-L Inc. Polyethylene plant expansion	1981	55	Edmonton
Dow Chemical of Canada Ltd. Polyethylene plant	1984	75	Fort Saskatchewan
Esso Chemical Canada Sulphuric acid plant	1981	15	north of Edmonton
Gainers Ltd. Meat processing plant	n.a.	25-30	Edmonton
Imperial Oil Ltd. Ammonia and urea fertilizer plant	1983	250	Edmonton
Phosphate fertilizer plant	1982	45	near Edmonton
Interprovincial Steel & Pipe Corp. Ltd. New spiral pipe mill	1981	12	Edmonton
New plant	1982	50	Calgary
Makin Project Initiators Ltd. Pulp and paper mill	n.a.	160	south of Edmonton
Molson Companies Ltd. Brewery expansion	1983	24	Edmonton
Nova and Shell Canada Ltd. Styrene plant	1984	300	near Edmonton
Petrochemicals Alberta Project Benzene plant	n.a.	225	Fort Saskatchewan
Ethylbenzene styrene plant	1984	300	north of Edmonton
Sabre Petroleums Ltd. Nitrogen plant	1981	13-15	south of Edmonton
Sherritt Gordon Mines Ltd. Nitrogen fertilizer plant	1983	320	Fort Saskatchewan
Union Carbide Canada Ltd. Ethylene plant	1984	300	Central Alberta
Air-separation plant expansion	1982	12	Fort Saskatchewan
Western Co-operative Fertilizers Ltd. Sulphuric acid plant	1981	20	Medicine Hat

Manitoba - Saskatchewan

CSP Foods Ltd. Oilseed processing plant	1982	40	Harrowby, Man.
Dominion Bridge Co. Ltd. (Manitoba Rolling Mills) Expansion, steel rolling mill	n.a.	6	Selkirk, Man.
Interprovincial Steel & Pipe Corp. Ltd. Expansion - 2nd phase	1981	41	Regina, Sask.
Northern Telecom Canada Ltd. Fibre optics plant	1981	11	Saskatoon, Sask.
Prince Albert Pulp Co. Ltd. Pulp mill improvement	1981	18	Prince Albert, Sask.
Sodium chlorate plant	1982	12	Prince Albert, Sask.

Simplot Chemical Ltd. Nitrogen fertilizer plant expansion	n.a.	35	Brandon, Man.
Versatile Cornat Corporation Expansion, tractor assembly	1981	26	Winnipeg, Man.

Ontario

Abitibi-Prince Inc. Newsprint mill improvement	1982 n.a. n.a.	111 66 15	Iroquois Falls Thunder Bay Smooth Rock Falls
Air Products and Chemicals (Canada) Ltd. Liquid hydrogen plant	1981	n.a.	Sarnia
Algoma Steel Corp., Ltd. Heat treating line, plate mill	1981	24	Sault Ste. Marie
New seamless tube mill	1984	300	Sault Ste. Marie
Upgrade and expand rail and structural mill	1981	15	Sault Ste. Marie
Upgrade hot strip mill	1982	49	Sault Ste. Marie
American Can of Canada Ltd. Pollution abatement and modernization	1981	60	Marathon
Atlas Steels Plant expansion	1981-82	11	Welland
Boise Cascade Newsprint mill improvement	1981-84	80	Kenora
CAE Industries Auto part plant expansion	1981	17	St. Catharines
Canada Packers Inc. Beef packing plant	1982	16	Toronto
Canada Starch Co. Ltd. Corn wet-milling plant	1982	17	Cardinal
Liquid corn sweetener plant	n.a.	50	Port Colborne
Canadian International Paper Co. Ltd. Expansion, tissue plant	1981	36	Toronto
Chrysler Canada Ltd. Truck plant conversion and expansion	1983-84	413	Windsor
Car plant conversion and modernization		250	Windsor
Casting plant conversion		89	Etobicoke
Car assembly plant improvement		57	Windsor
New research and development facility	n.a.	20	Windsor
C-I-L Inc. Ammonia plant expansion	1984	150	Courtright
Cyanamid Canada Inc. Calcium carbide plant	1981	22	Niagara Falls
De Havilland Aircraft of Canada Ltd. Expansion	1982	24	Toronto
Dominion Foundries and Steel Ltd. Second hot strip mill	1983	450	Hamilton
Galvanizing line	1981	49	Hamilton
Domtar Inc. Linerboard and newsprint plant modernization	1982	62	Red Rock
Plant modernization	n.a.	43	Cornwall
Dow Chemical of Canada Ltd. Expansion, polypropylene glycol plant	1981	11	Sarnia
Du Pont Canada Inc. Polyethylene plant expansion, under study	1983	n.a.	Sarnia
E.B. Eddy Forest Products Ltd. Pulp and bleach facilities, specialty paper machines and other projects	n.a.	225	Espanola
Erco Industries Ltd. Sodium chlorate plant	1981	13	Thunder Bay
Euclid Canada Ltd. Expansion	1981	12	Guelph
Firestone Canada Ltd. Expansion, steel products plant	1981	20	London
Ford Motor Company of Canada Ltd. New engine plant	1981	535	Windsor
Assembly plant conversion	1981	73	St. Thomas

General Motors of Canada Ltd.			
Expansion, transmission plant	1981	2,000	Windsor
Conversion and expansion	1982	680	St. Catharines
Axle plant conversion	1982	250	Oshawa
Fabrication plant expansion	1981	71	Oshawa
Auto assembly plant	1982	100	Oshawa
B.F. Goodrich of Canada Ltd.			
Radial tire plant	1981	11	Kitchener
Grant & Wilson Ltd. and Partners			
Lumber mill	1982	24	Englehard
Great Lakes Forest Products Ltd.			
Modernization, paper plant	1983-84	250	Dryden
Hayes-Dana Ltd.			
Expansion, axle plant	1981	25	Barrie
Imperial Oil Ltd.			
Polyethylene plant	1983	100	Sarnia
Jannock Corp. Ltd.			
Steel tube mill	1981	19	Toronto
Kellogg Salada Canada Inc.			
Cereal plant	n.a.	10	London
Miracle Mart Ltd.			
Meat processing plant	n.a.	20	Toronto
Mitel Corp.			
New plant	1981	12	Kanata
Mobil Chemical Canada Ltd.			
Polypropylene fibre plant	1981	30	Belleville
William Neilson Co. Ltd.			
Confectionery plant renovation	1981	11	Toronto
The Ontario Paper Co. Ltd.			
Newsprint plant modernization and expansion	1983	260	Thorold
Pirelli Cables Inc.			
Power cable plant	1981	13	Prescott
Polysar Ltd.			
Butyl rubber and isobutylene plant	1982	180	Sarnia
Spruce Falls Power & Paper Co. Ltd.			
Modernization, new thermo-mechanical pulp mill, pollution control	1982	88	Kapuskasing
St. Lawrence Cement Co. Ltd.			
Expansion	n.a.	21	Mississauga
The Steel Company of Canada Ltd.			
New steel plant	1982	1,250	Nanticoke
Expansion program	n.a.	365	Nanticoke, Hamilton
Union Carbide Canada Ltd.			
Polyethylene plant expansion	1981	40	near Sarnia
Uniroyal Inc.			
Increased capacity, tire plant	1982	23	Kitchener
Waferboard Corp. Ltd.			
Plant expansion	1982	13	Timmins

Quebec

Alcan Aluminum Ltd.			
New smelter - 1st phase	1981	200	Grande Baie
- 2nd phase	1981	90	Grande Baie
- 3rd phase	1982	150	Grande Baie
Upgrade alumina plant	1982	42	Vaudreuil
Pollution abatement	1982	13	Beauharnois
Alumina plant upgrading	1981	25	Jonquière
Bombardier-MLW Ltd.			
Plant modernization	n.a.	16	Montreal
Plant expansion	n.a.	14	Valcourt
Plant expansion	n.a.	12	La Pocatière
Canada Wire and Cable Ltd.			
Copper rod mill	1982	25	Montreal
Canadair Ltd.			
Assembly plant	1981	25	Dorval
Canadian General Electric Co. Ltd.			
New plant (reported)	n.a.	60	Eastern Townships

Canadian International Paper Co. Ltd. Energy conservation and newsprint development program	1981	23	Gatineau
Environmental controls and plant improvements	1981	16	La Tuque
Celanese Canada Inc. Weaving plant modernization	1981	12	Drummondville
Consolidated-Bathurst Ltd. New pulp mill	1981	25	Grand'mère
Newsprint plant improvement	1982	32	Shawinigan
Plant improvement	1982	61	Trois-Rivières
Plant modernization	1984	85	Port Alfred
Dominion Bridge-Sulzer Inc. Plant expansion	1984-85	28	Lachine
Donohue-Normick Inc. Newsprint mill	1982	190	Amos
Finachem Canada Inc. Polystyrene plant	1981	15	Pointe-aux-Trembles
Forex Lerroy Inc. Waferboard plant	1981	25	Val d'Or
W.R. Grace and Co. Zeolite plant	1981	11	Valleyfield
Kruger Pulp & Paper Ltd. Modernization, newsprint mill	1981	35	Bromptonville
Newsprint mill expansion, improvement and modernization	1981	56	Trois-Rivières
Marine Industries Ltd. Plant expansion and modernization	n.a.	17	Tracy
Noranda Mines Ltd. Smelting plant improvement	1982	35	Noranda
Normick-Perron Inc. Newsprint mill	1982	190	Amos
PPG Industries Canada Ltd. Sodium chlorate plant expansion	1981	20	Beauharnois
Pratt & Whitney Aircraft of Canada Ltd. Plant expansion and re-equipment	1984	69	Longueuil and St-Hubert
Raffinerie du Sucre du Québec Plant expansion	n.a.	30	Mont St-Hilaire
Rolland Inc. Paper machine rebuild	n.a.	12	Mont-Rolland
Expansion, fine paper	n.a.	14	St-Jerome
Tembec Inc. Sulphite pulp mill expansion and modernization	1984-85	70	Temiscaming

Atlantic Provinces

Abitibi-Price Inc. Conversion to newsprint production	1981	82	Stephenville, Nfld.
Acadia Forest Products Ltd. Plant modernization	1985	48	Nelson-Miramichi, N.B.
Bowater Newfoundland Ltd. Pulp plant	n.a.	17	Corner Brook, Nfld.
MacMillan Rothesay Ltd. Improvements, newsprint mill	1981	11	Saint John, N.B.
Michelin Tires (Canada) Ltd. Plant	n.a.		Waterville, N.S.
Plant expansion	n.a.	400	Granton, N.S.
Plant expansion	n.a.		Bridgewater, N.S.
New Brunswick International Paper Co. Expansion, newsprint mill	1982	158	Dalhousie, N.B.
Nova Scotia Forest Industries Plant improvement	n.a.	20	Port Hawkesbury, N.S.
St. Anne — Nackawic Pulp & Paper Co. Ltd. Pollution abatement, energy conservation and modernization	n.a.	13	Nackawic, N.B.
Sydney Steel Corp. Plant modernization (planned)	1990	351	Sydney, N.S.

Industrial incentives

Federal incentives

Over the years the federal government has developed a system of incentives that generally foster a number of economic objectives such as regional development, industrial expansion, international competitiveness, and research and development. These incentives are also designed to stimulate business capital spending and investor confidence. Below is a brief outline of those programs.

Income Tax Incentives

Investment tax credit

An investment tax credit, which varies regionally from 7 percent to 20 percent, is available as a direct reduction from federal tax payable. This credit reduces the cost of new buildings, machinery and equipment principally used in Canada in prescribed activities such as farming, logging, manufacturing and processing. In 1978 it was extended to expenditures on scientific research and development at rates of 10 percent to 20 percent and to investment in equipment for rail, air, water and long-haul transport used principally for the purposes of transportation within or to and from Canada at a rate of 7 percent. The credit is limited in any one year to \$15,000 plus one half the federal tax payable in excess of \$15,000, but any unused credits may be carried forward for 5 years, subject to the same annual limits. In 1978, this tax credit was extended indefinitely beyond its scheduled expiry date.

The budget of October 28, 1980 introduced a new program to counter regional inequalities through a 50 percent tax credit for certain new capital investments made in specially designated areas to the end of 1985.

Research and development incentives

The investment tax credit for R&D expenditures is 20 percent in the Atlantic Provinces and 10 percent in the rest of Canada, while small businesses are allowed a special R&D tax credit of 25 percent. In addition to writing off 100 percent of current and capital expenditures for R&D, taxpayers can deduct from their income a further 50 percent of any increase in such expenditure over the average level of the previous three years.

Accelerated capital cost allowance for manufacturing and processing industries

Taxpayers may charge 50 percent straight-line depreciation on most new machinery and equipment for use in manufacturing and processing in Canada (including heavy-oil upgrading), thus writing off such assets in two years.

Inventory allowance

In recognition of the distortion of business income from inventory inflation, three percent of the opening cost of inventories (except real property and goods not for resale) can be deducted in calculating business income.

Special rate for corporate manufacturing and processing profits

A special rate of tax on manufacturing and processing activities carried on in Canada (including heavy-oil upgrading) reduces the general rate on corporate profits from 36 percent to 30 percent. Provincial corporate tax rates ranging from 10 percent to 15 percent are levied in addition to the applicable federal rate.

Special tax rates for incorporated small businesses

Small Canadian-controlled private corporations are accorded lower income tax rates on active business income derived from activities carried on in Canada. The federal rate is 10 percent in manufacturing and processing industries and 15 percent in other activities. Provincial corporate tax rates ranging from 5 percent to 12 percent

of income are levied in addition to the applicable federal rate.

Employment tax credit

Employers hiring workers to fill newly-created jobs which are additional to their normal work force may be entitled to a tax credit which varies regionally.

Department of Regional Economic Expansion

Regional Development Incentives for designated regions

The Department offers cash incentives to firms that establish, expand or modernize facilities in designated regions. These regions include Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island, Manitoba, Saskatchewan, Yukon Territories, the Northwest Territories, Quebec (except the Montreal Special Area referred to hereafter), and the more northern parts of Ontario, Alberta, and British Columbia.

Most manufacturing and processing industries are eligible for the development incentives and loan guarantees. Facilities for primary processing — petroleum refining and pulp and newsprint activities — and commercial facilities are not eligible. However, loan guarantees may be offered for new business offices, warehousing and freight handling facilities, shopping centres, convention facilities, hotels and motels, recreation centres and research establishments.

Development incentives, usually, in the form of outright grants are available in amounts up to (a) 25 percent of approved capital costs plus \$5,000 per job, or (b) \$30,000 per direct job for new facilities or expansions of existing facilities to produce new products. Volume expansions of existing facilities or modernization can qualify for 20 percent of approved capital costs. Projects in these regions are eligible for higher rates of investment tax credits of either 10 percent or 20 percent (see Investment Tax Credit). The Department guarantees loans made to firms in order to help them obtain favourable financing terms. **Contact:** Industrial Incentives Branch, Department of Regional Economic Expansion, Ottawa, Ontario, Canada K1A 0M4.

Montreal Special Area

The Department of Regional Economic Expansion also has an incentive program for business wanting to establish, expand or modernize in the Montreal Special Area. Incentives are based on approved

capital costs with the amount determined according to the nature of the project and location. The maximum level of incentives is 25 percent of approved capital cost.

Area No. 1 which includes the City of Montreal and its immediate environs, applies only to the following industries: food industries dealing in prepared and quick frozen food; plastic products; primary metals; metal fabricating; machinery; transportation and equipment; electrical products; chemicals and chemical products; select scientific and professional equipment; certain miscellaneous manufacturing; and, activities related to research and development including research centres. A minimum capital cost of \$200,000 is required.

Area No. 2 applies outside of Area No. 1 and extends to Hull on the west and on the east beyond Granby. The incentives apply to manufacturing and processing industries as well as the aforementioned research and development activities. A minimum capital cost of \$100,000 is required. **Contact:** Department of Regional Economic Expansion, Tour de la Bourse, 300 Place Victoria, P.O. Box 247, Montreal, Quebec, Canada H4Z 1E8.

Special investment tax credit for areas of greatest disparity

This program under the direction of DREE was actually introduced by the Minister of Finance in the October 28, 1980 budget. The program is aimed at the areas of greatest disparity and covers 5 percent of the population of Canada.

The tax credit is 50 percent of the eligible capital cost of assets acquired primarily to manufacture and process products. No prior approval is required but information on the eligibility of manufacturing and processing and of assets may be obtained from DREE as identified below. No minimum or maximum apply. Information on the program is available from DREE. **Contact:** Industrial Incentives Branch, Department of Regional Economic Expansion, Ottawa, Ontario, Canada K1A 0M4.

Department of Industry, Trade and Commerce

Enterprise Development Program (EDP)

This program assists small- and medium-sized manufacturing and processing businesses to become more viable and internationally competitive. Introduced in 1977, the program is expected to provide over \$1 billion to Canadian business over the next five years.

In order to receive assistance, the applicant must prepare and submit a plan that shows how the project will affect the firm's viability. EDP officers analyse the firm's resources (human, financial, physical and technological), the potential and limits of the market, and the plans for deploying the resources and penetrating the Canadian and foreign markets. The results of the analysis are submitted for approval to the Enterprise Development Board, which is composed of businessmen and public servants.

The two main forms of assistance are cost-sharing and loan insurance. Cost-sharing is available for marketing and productivity studies, and innovation and design projects. Loan insurance is generally used for the expansion or modernization of facilities, working capital, mergers and acquisitions.

The eligibility criteria focus on the viability of the firm and project on the firm's ability to finance its projects. As for cost-sharing, the activities must represent a heavy financial burden for the firm when compared with its resources. Loan insurance is provided on a last-resort basis to firms unable to obtain debt capital on reasonable terms and conditions. Firms seeking loan insurance must have called upon other institutions such as the Federal Business Development Bank before applying to the Department.

Manufacturing and processing firms are generally eligible for all forms of assistance offered by the program. Firms in the service sector can obtain loan insurance if they can demonstrate that their services will produce a direct, tangible and substantial benefit for manufacturing and processing firms.

Special assistance to general and special trade contractors

The program provides an extension of EDP loan insurance and other benefits to general and special trade contractors, especially those who want to improve their position on the international market and who are interested in constructing turn-key operations. It is designed to help Canadian firms to modernize facilities, re-equip themselves and even merge with other firms in order to bid competitively for large foreign capital projects. **Contact:** Enterprise Development Board, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Program for Export Market Development (PEMD)

The purpose of the program is to help Canadian suppliers penetrate new export markets or increase their exports. Financial

assistance is provided in the form of a repayable loan (in the event of success) for eligible expenses: 1) when a firm presents bids involving unusually large and complex capital expenditures; 2) in cases of exceptional international competition; and 3) for establishing a consortium to respond to demand in foreign markets.

The program has five sections offering a wide range of assistance designed to meet the needs of industry. The program encourages participation in major projects abroad, export market identification or adjustment, trade fairs abroad, trips to Canada by potential buyers and the formation of export consortia. About 2,000 firms use this assistance program each year. **Contact:** Program for Export Market Development, Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Small Business Loans Act

The Department of Industry, Trade and Commerce guarantees loans made to small businesses whose gross annual income does not exceed \$1.5 million during the year in which the loan is made or, in the case of a new firm, if the estimated income in the first financial period — at least 55 weeks — does not exceed \$1.5 million.

All chartered banks, Alberta Treasury Branches and designated financial institutions — credit unions, trust, loan, insurance and finance companies — are authorized to make loans under the provisions of the Act.

Loans may be authorized to finance the cost of stationary and transportation equipment, of buildings and land necessary for operating a commercial venture and construction, installation, renovation, improvement or modernization of facilities.

The maximum rate of interest payable on SBLA loans is one percent over the prime lending rates of the chartered banks. The repayment period may not exceed 10 years. The terms of the loan are settled between the lender and the applicant without prior reference to the government. The amount to be repaid may not exceed \$100,000 and the applicants must invest a reasonable portion of the purchasing cost out of their own resources. **Contact:** Bank manager or the Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Machinery Program

This program provides for the remission of custom duties on imports of machinery not manufactured in Canada but of vital importance to the firm. **Contact:** Machinery and Equipment Advisory Board, Department of Industry, Trade and Commerce,

235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Other programs

Other programs have been developed for shipbuilding, trade fairs and missions, defence export sales, footwear and tanning, fashion, the electronics industry, and export market development. **Contact:** Department of Industry, Trade and Commerce, 235 Queen Street, Ottawa, Ontario, Canada K1A 0H5.

Export Development Corporation (EDC)

The Corporation provides financial assistance to Canadian exporters by means of insurance, loans, guarantees and other services.

The EDC has extensive powers for helping all firms in Canada, regardless of size, insuring them against non-payment by foreign buyers of Canadian goods and services in almost all export sectors.

Through its "Risk Protection" insurance, the EDC can insure financial institutions against calls on surety instruments provided on behalf of Canadian exporters and can insure consortium members against the possibility of non-performance by another member of the consortium. The EDC also extends long-term loans, or guaranteed loans, to foreign buyers of Canadian goods and services. These loans are arranged in the private sector with interest rates which are the most competitive possible in the international market. The EDC offers this service when the foreign buyer needs long-term (5 years or more) credit but cannot obtain it from private sources.

The EDC can insure Canadian firms investing abroad against political risks, including losses or damages resulting from expropriation, insurrection, war or the impossibility of converting profits or capital. Almost any interest an individual or firm can have in a business concern abroad is insurable, including shares, loans, contracts for administrative or technical services, royalties and licensing agreements. However, only new investments in developing countries are eligible for insurance at the present time, the main condition being that the investor maximize the benefits to be derived by Canada and the host country. **Contact:** Export Development Corporation, 110 O'Connor Street, Ottawa, Ontario, Canada K1P 5T9

Federal Business Development Bank

The Federal Business Development Bank, a Crown corporation, offers financial assistance to businesses who cannot find it elsewhere on reasonable terms and conditions. The Bank is directed to give

particular consideration to the needs of small businesses.

The Bank's assistance may take the form of loans, loan guarantees, share capital or a combination of these, according to what best suits the special needs of the firm. The loans, normally guaranteed against fixed assets, are extended at market rates. As for the share-capital program, the Bank usually takes a minority position and agrees to have its shares bought back on suitable terms.

Most of the Bank's customers spend the money they obtain in purchasing land, buildings or equipment. Others use it to augment their firm's working capital, to start up new firms or for other purposes.

In addition to financial assistance, the Federal Business Development Bank offers a management consulting, management training and information service to small businesses. **Contact:** Federal Business Development Bank, 901 Victoria Square, Montreal, Quebec, Canada H3C 3C3.

Canadian Commercial Corporation (CCC)

Each year, the CCC helps more than 400 Canadian firms make transactions abroad involving a wide range of products from advanced electronics systems to commercial supplies of every description. A great deal of these sales are related to the foreign aid programs of the Canadian International Development Agency (CIDA).

In many cases, the CCC is able to link Canadian suppliers with the purchasing services of foreign governments and international agencies, which are significant markets for Canadian firms. Thousands of bids can be submitted in this way each year. **Contact:** Canadian Commercial Corporation, 110 O'Connor Street, Ottawa, Ontario, Canada K1A 0S6.

National Research Council (NRC)

Industrial Research Assistance Program (IRAP)

Through this program the National Research Council analyses research projects submitted by industry and shares the cost of selected research projects. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Pilot Industry/Laboratory Program (PILP)

This is a shared-cost program between NRC laboratories and industrial firms. **Contact:** National Research Council, Montreal Road, Ottawa, Ontario, Canada K1A 0R6.

Statistical tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status

	1977	1978	1979	1980
Reviewable new cases	261	360	380	338
Carryover from previous period	65	73	106	114
Total of above	326	433	486	452
Total resolved	253	327	372	327
Allowed	231	282	320	249
Disallowed	12	28	24	37
Withdrawn	10	17	28	41
Carried over to next period	73	106	114	125
Allowed cases as percent of resolved (%)	91	86	86	76
Value of assets, all cases (\$000,000)	1,145	4,489 ^f	4,049	4,043

Table 2 — Country of control

	1977	1978	1979	1980
Total	261	360	380	338
United States	171	243	248	198
United Kingdom	40	47	52	53
Other Europe	41	52	68	65
Austria	-	-	1	-
Belgium	2	1	2	1
Denmark	2	1	1	1
Finland	-	-	2	3
France	6	5	9	12
Germany, West	15	17	22	19
Greece	-	-	1	-
Italy	3	1	2	3
Liechtenstein	-	1	1	2
Luxembourg	-	1	-	-
Netherlands	4	8	6	7
Norway	-	1	-	1
Spain	-	-	1	-
Sweden	2	7	13	6
Switzerland	7	9	7	10
All other	9	18	12	22
Australia	1	-	3	4
Bermuda	-	-	1	1
Japan	3	7	2	2
Others	5	11	6	15
Allowed cases as percent of resolved	%	%	%	%
United States	91	87	85	75
United Kingdom	95	78	87	79
Other Europe	90	89	88	78
All other	80	80	93	76

Table 3 — Industrial sector

	1977	1978	1979	1980
Total	261	360	380	338
Primary	20	30	29	17
Agriculture, fishing and trapping	4	5	4	1
Forestry	1	1	-	2
Mines, quarries, oil wells	15	24	25	14
Manufacturing	108	162	178	142
Food, beverage and tobacco	15	15	14	14
Rubber, plastic and leather	6	12	5	6
Textiles, knitting and clothing	5	4	14	7
Wood, furniture and paper	12	14	10	8
Printing, publishing, and allied	2	4	5	4
Primary metal and metal fabrication	12	20	34	24
Machinery and transport equipment	14	28	43	24
Electrical products	12	16	20	17
Non metallic mineral products	5	8	4	6
Petroleum and coal products	1	1	1	-
Chemical	10	22	17	12
Miscellaneous	14	18	11	20
Construction and services	133	168	173	179
Construction	3	1	6	6
Transportation, communication, utilities	10	10	9	9
Trade	72	101	93	93
Finance, insurance, real estate	15	19	12	27
Community, business, personal services	33	37	53	44

* Provision for review of acquisitions came into force April 9, 1974

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status

	1977	1978	1979	1980
Reviewable new cases	328	331	379	399
Carryover from previous period	58	52	64	70
Total of above	386	383	443	469
Total resolved	334	319	373	339
Allowed	297	273	323	287
Disallowed	12	21	22	27
Withdrawn	25	25	28	25
Carried over to next period	52	64	70	130
Allowed cases as percent of resolved (%)	89	86	87	85
Planned investment, all cases (\$000,000)	803	323	202	1,005

Table 5 — Country of control

	1977	1978	1979	1980
Total	328	331	379	399
United States	184	192	205	224
United Kingdom	30	26	45	37
Other Europe	85	80	82	111
Austria	-	3	-	3
Belgium	-	1	5	1
Denmark	6	4	2	7
Finland	1	1	7	1
France	17	16	15	23
Germany, West	26	18	19	25
Gibraltar	-	-	-	1
Greece	1	1	-	1
Ireland	-	1	1	-
Italy	10	10	6	14
Liechtenstein	-	-	-	1
Luxembourg	-	1	-	1
Monaco	1	-	-	-
Netherlands	3	1	4	12
Norway	3	3	1	3
Portugal	-	1	-	-
Spain	-	2	1	2
Sweden	9	5	6	9
Switzerland	8	12	15	7
All other	29	33	47	27
Australia	3	3	2	3
Hong Kong	3	3	4	5
India	1	1	1	-
Japan	10	6	17	3
Others	12	20 ^f	23	16
Allowed cases as percent of resolved	%	%	%	%
United States	88	86	86	84
United Kingdom	82	85	92	83
Other Europe	95	87	88	89
All other	81	79	83	75

Table 6 — Industrial sector

	1977	1978	1979	1980
Total	328	331	379	399
Primary	22	27	16	42
Agriculture, fishing and trapping	6	2	-	7
Forestry	2	2	1	2
Mines, quarries, oil wells	14	23	15	33
Manufacturing	94	99	100	126
Food, beverage and tobacco	7	6	11	11
Rubber, plastic and leather	5	5	9	11
Textiles, knitting and clothing	9	5	8	6
Wood, furniture and paper	5	6	9	14
Printing, publishing, and allied	-	4	5	4
Primary metal and metal fabrication	19	12	13	24
Machinery and transport equipment	19	19	20	17
Electrical products	5	7	8	13
Non metallic mineral products	5	6	1	5
Petroleum and coal products	-	-	-	1
Chemical	3	6	7	10
Miscellaneous	17	23	9	10
Construction and services	212	205	263	231
Construction	4	14	12	12
Transportation, communications, utilities	5	11	11	7
Trade	133	103	156	129
Finance, insurance, real estate	16	11	14	7
Community, business, personal services	54	66	70	76

* Provisions for review of new businesses came into force October 15, 1975

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FIRA procedures: clarifying some legal issues
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FOREIGN INVESTMENT REVIEW

A journal on
investment conditions in

CANADA

Autumn 1981 Vol. 5, No. 1

Canada's investment program, 1981-2000

The changing pattern of Canada-U.S. financial flows

More foreign investment but . . . less foreign control



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News briefs

Canada, Alberta reach oil agreement

At the beginning of September the governments of Canada and Alberta reached an agreement on energy pricing and revenue sharing. The agreement, which comes after a year and a half of talks, has significant implications for investors, producers and consumers.

The five-year term of the agreement opens the door for longer term industrial and energy planning, and is expected to help restore stability to Canada's oil industry.

The pact will allow prices for oil discovered before 1981 to increase on a fixed schedule, subject to a ceiling of 75 percent of world levels. Prices for "new" oil, which includes synthetic oil and oil from discoveries made after January 1, 1981, will be gradually adjusted upward toward current world levels. Natural gas prices for consumers will also be allowed to rise, but will, in effect, be held at about 65 percent of the Toronto market price of crude oil. For natural gas producers, prices will rise on a fixed schedule that is not tied to oil prices.

The new accord replaces the pricing formula in the National Energy Program. In return for agreeing to higher prices, the federal government will receive a larger share of oil revenues. The industry's revenue will increase under the agreement, but the industry will also face new taxes.

According to some industry experts, the agreement points the way to energy self-sufficiency for Canada by the 1990s.



Canadian Energy Minister Marc Lalonde (right) and his Alberta counterpart Merv Leitch during negotiations leading to the signing of the new oil pricing agreement.

Canada's wage compensation relatively low

Canada has one of the lowest wage compensation levels among industrial countries, according to a study carried out recently by the Department of Industry, Trade and Commerce. Based on data from the U.S. Depart-

ment of Labor, as recently as 1980 Canada ranked sixth behind Belgium, Sweden, the Netherlands, Germany and the United States in terms of estimated compensation per hour worked in manufacturing. This represents a significant change over the situation in 1970 when Canada ranked second only to the United States.

Estimated compensation per hour worked of production workers in manufacturing in ten industrial countries (U.S. dollars) 1960-80 Canada = 100

Country	1960		1965		1970		1975		1978		Preliminary 1979	Rank	Provisional year 1980	Rank
		Rank		Rank		Rank		Rank		Rank				Rank
United States	125	1	138	1	121	1	104	4	108	5	110	5	109	5
Belgium	38	5	57	5	60	6	108	3	133	1	145	1	145	1
Canada	100	2	100	2	100	2	100	6	100	6	100	7	100	8
France	39	5	54	6	50	8	76	8	87	7	99	6	104	6
Germany	40	4	62	4	68	4	102	5	123	4	134	4	132	4
Italy	29	9	49	9	51	7	76	7	80	8	92	8	99	7
Netherlands	32	8	54	6	62	5	108	2	128	2	138	3	134	3
Sweden	56	3	82	3	85	3	118	1	126	3	138	2	139	2
U.K.	39	5	50	8	43	9	54	9	55	10	66	10	78	9
Japan	12	10	21	10	29	10	50	10	72	9	68	9	65	10

Source: Based on unpublished data of the U.S. Department of Labor, Bureau of Labor Statistics, Office of Productivity and Technology, March, 1981.

Additional compensation above that of direct hourly wages and currency realignments are two of the most important factors accounting for the gap between Canada's wage compensation level and that of the higher ranked industrial countries. According to the study, the ratio of additional compensation to direct hourly wages in Canadian manufacturing was 30 percent in 1980, whereas it was 36 percent in the United States and ranged from 63 to 97 percent in Germany, Belgium, France, Italy, Sweden and the Netherlands. Thus, Canadian employers have a significantly lower burden of additional compensation than do employers in most other industrial countries.

The study pointed out, however, that these comparisons do not include productivity levels, which are important in comparing labour costs. It noted that productivity in Canada, defined as output per man-hour, grew at an average rate of 3.7 percent between 1961 and 1980, a rate significantly higher than that in the United States.

Foreign banks to operate in Canada

The first 11 foreign banks to be authorized to operate in Canada were issued letters patent in late July, and had their amounts of "deemed" or authorized capital set by the Government of Canada in August 1981. Before the new Bank Act was proclaimed in December 1980, foreign banks were not permitted to engage in banking in Canada.

In all, about 60 foreign banks are expected to apply to charter subsidiary banks in Canada, and half of those will involve the conversion of existing foreign-owned non-bank financial corporations already operating in Canada.

To be approved, a foreign bank's application must show evidence of the strength of the bank or of its parent bank, that the new bank will contribute to competitive banking in Canada, and that the operating conditions for Canadian banks in the other country are as favourable as conditions are for the bank applying to establish in Canada.

After issuance of letters patent, the foreign bank is licensed for not more than one year at a time during its first five years of operations, and not longer than three years thereafter. Once licensed, the foreign bank subsidiary is treated the same as domestic banks in the fields in which it competes.

Foreign bank subsidiaries are, however, subject to restrictions: they must be adequately capitalized and conservatively financed; and their growth will be controlled. For instance, the total value of all Canadian assets of foreign banks will not be permitted to exceed 8 percent of the assets of the domestic banking system, and the Canadian assets carried by

each bank subsidiary will be allowed to grow only to 20 times its authorized capital.

The 11 new foreign banks are: ABN Bank Canada; Bank of America Canada; Banque Nationale de Paris (Canada); Barclays Bank Canada; Continental Illinois Bank (Canada); Deutsche Bank (Canada); Hongkong Bank of Canada; Korea Exchange Bank of Canada; National Bank of Detroit, Canada; Swiss Bank Corporation (Canada); and the Bank of Tokyo Canada. The Banque Nationale de Paris (Canada) is based in Montreal, the Hongkong Bank of Canada in Vancouver, and the others in Toronto.

Letters patent are expected to be issued for the establishment of Citibank Canada November 1, 1981.

The establishment of foreign bank subsidiaries is governed by the Bank Act, not by the Foreign Investment Review Act.

Alberta introduces new companies and securities bills

The Government of Alberta recently introduced in the legislature two major pieces of business and investment legislation.

Passage of the Business Corporations Act, Bill 43, will make it easier to do business across Canada because after a short time — three years is proposed — there will be only one system of company law in Alberta, a system similar to federal legislation and to the company laws of Ontario, Saskatchewan and Manitoba. Bill 43 will replace the 1929 Companies Act, and will simplify procedures, protect creditors and minority shareholders and encourage investment in Alberta. While the

Ratio of additional compensation to direct hourly earnings of production workers in manufacturing in ten countries^a percent

	1960	1965	1970	1975	1979	1980
United States	17.9	20.3	24.7	31.4	35.5	36.4
Belgium	38.9	47.9	56.2	68.3	72.1	72.4
Canada	15.4	16.2	19.8	22.8	29.2	30.1
France	54.5	62.0	60.3	70.9	79.6	80.6
Germany	35.0	36.5	43.1	57.3	62.3	63.4
Italy	70.3	75.9	79.2	99.4	96.0	97.0
Netherlands	38.5*	43.8*	56.7*	70.0*	72.1*	73.6*
Sweden	16.5	22.7	26.5	45.4	61.3	63.0
U.K.	10.9	13.3	15.0	23.9	30.0	31.7
Japan	12.6*	13.1*	13.2*	14.3*	18.8*	20.0*

Note: Data for 1979 are preliminary estimates. The estimates for 1980 are provisional.

* All employees

^a Those ratios are in local currencies

Source: Unpublished data of the U.S. Department of Labor, op. cit., March, 1981.

bill deletes outmoded rules, updates the language of Albertan corporate law, and reduces the number of incorporating documents to one "Articles of Incorporation", it still requires that half the directors of Alberta companies be resident Albertans.

The second bill is the Securities Act, 1981, or Bill 44. It continues the general concepts of current legislation, but enhances the investment climate for Albertans, and clearly outlines the rules by which capital investment is raised. Bill 44 will expand disclosure requirements; introduce measures to enable groups, especially small business, to raise capital from the public more readily; recognize as self-regulators organizations that have shown themselves able to train, audit and discipline themselves; expand the Securities Commission from five to seven members; and amend prospectus preparation rules.

New centres of technology

The Government of Canada announced in June the establishment of Microelectronics Centres in six Canadian universities. With financial support from the Department of Industry, Trade and Commerce amounting to \$1 million for each centre over the next five years, the University of Sherbrooke, the University of Manitoba, the University of Alberta, the University of British Columbia, the University of Toronto and a university in the Atlantic provinces will provide technical assistance to industry in their regions in the application of microelectronics to products and manufacturing processes. These universities already have capabilities in the industrial application of microelectronics.

British Columbia: Canada's slice of the Pacific Rim

by Jim Lyon

British Columbia, Canada's gateway to the fast-growing Pacific Rim countries, is a region of striking contrasts. In spite of vast thinly populated areas, cities such as Vancouver and Victoria give the province all the attributes of a highly urbanized society. Topographically, its huge mountain ranges give way to a gently undulating interior region and a coast riddled with rugged fjords that are fed by the melting ice of spectacular glaciers. More important, however, is British Columbia's economic profile: though the province has a highly developed economy, it still offers the heady potential of great untapped resources to entrepreneurs who are willing to risk their capital.

A strong economy and unique lifestyle attractions have drawn increasing numbers of people to British Columbia. The province's population, estimated in mid-1979 at over 2.5 million or approximately 11 percent of Canada's population, has been growing steadily despite a falling birth rate, mainly on the strength of immigration and interprovincial migration. The net migration of people from other provinces reached almost 50,000 in 1980 alone, accounting for 53 percent of the province's population growth that year. This is not a new phenomenon, however, the province having recorded a positive net migration almost every year since 1961.

British Columbia has been absorbing the new arrivals, be they Canadian or foreign, by creating jobs at an annual rate of 5.5 percent. This is the highest rate of employment growth of all Canadian provinces except Alberta. In fact, almost 22 percent of the national increase in employment in Canada in 1980 was recorded in British Columbia. This outstanding employment performance cut the provincial unemployment rate from 8.6 percent in 1976, which was 1.5 percent above the national average, to 6.8 percent in 1980, slightly below the national figure.

The province is beginning to experience a shortage of skilled workers. Historically, British Columbia has drawn many of its skilled workers from Europe, but in recent years the flow of workers from that source has decreased to a trickle. A recent study, commissioned by the province, predicted a shortage of 5,000 skilled journeymen by 1984, a figure that does not include the demand for skilled tradesmen that will be created by major new coal projects that were announced last Spring. The current shortage is most serious in the northern areas of the province, as workers tend to drift to the Lower Mainland near the U.S. border and to southern Vancouver Island where the weather is more clement and urban amenities more easily obtained.

The province's gross domestic product reached \$28.1 billion in 1979 or 11 percent of Canada's gross national product. Personal income per capita that year was \$9,758 or about \$800 above the national average. But there is a more telling statistic: from 1974 to 1979 the province's real growth, excluding inflation, was nearly 21 percent compared with

the national average of 16 percent. Like its neighbour Alberta, British Columbia is quickly becoming an economic power among Canada's provinces.

British Columbia is energy rich although it still must import 77 percent of its petroleum needs, mainly from Alberta. In a forecast issued in November 1978, the British Columbia Energy Commission estimated natural gas supply volumes to be more than sufficient to meet both domestic and export needs at least until 1992. Coal reserves are currently estimated at 4.7 billion metric tons, more than sufficient to meet both domestic and export markets for the foreseeable future. About 47 percent of natural gas production and virtually all coal production is currently exported.

Hydro-electricity currently meets 15 percent of British Columbia's energy needs. In 1979 the total electric power consumed in the province was 41,500 gigawatt hours, up 3.2 percent over the 1978 total. In addition to existing and planned hydro-electric sites, there are major undeveloped sites with potential power greater than three times existing installed capacity.

Forestry, mining and fishing have been the mainstays of the provincial economy for decades. The forest industry has now matured and its time of rapid expansion is behind it, mining (especially coal) is gaining in importance, and the fishing industry is in troubled times.

The forest industry

The forest industry, which accounts for more than half of the gross provincial product, is undergoing a period of considerable change. Since most of the province's virgin timber has now been cut, mills must re-equip and modernize to handle smaller second-growth trees. Virtually all of the province's accessible timber resource has been allocated and expansion can only take place through efficiencies: making better use of the fibre supply through better recovery standards and logging trees that were previously considered uneconomic, either because they were too small, were of inferior quality or were too remote.

Foreign ownership (especially American) is high in the forest products industry. In addition to the controls exercised by FIRA, the Government of British Columbia, which owns 95 percent of the commercial forest land, scrutinizes company ownership when control (defined as more than 50 percent equity) changes hands. The province's interest is to regulate industrial and regional concentration.

British Columbia's forests are extensive, covering about 56 percent of the provincial land area; they support more than 8 billion cubic metres of mature timber, almost all softwoods. In 1979 the province's timber harvest exceeded 76 million cubic metres, surpassing the record harvest of the previous year by about one million cubic metres. The international competitiveness of the provincial forest industry has been enhanced for several years by a Canadian dollar that has averaged about 85 cents U.S.

Favourable long-term prospects for the industry are reflected in its current capital investment program. Capital and repair expenditures surpassed \$1 billion for the first time in 1979 and increased to \$1.3 billion in 1980. Of this latter figure \$222.4 million was spent on expansion in the wood products industry and \$438.4 million was on pulp and paper expansion.

In 1980 the province accounted for \$2.6 billion of Canada's \$8.4 billion worth of pulp and paper exports and \$2.4 billion of Canada's \$3.3 billion worth of lumber exports. After record sales years for lumber in 1978 and 1979, the sawmilling industry has experienced a severe cyclical downturn, largely because of

declines in U.S. housing starts. Though no significant market recovery is expected in 1981, most industry spokesmen are looking forward to several boom years, once recovery does occur, due in great part to considerable pent-up demand for homes in the important U.S. market and seriously declining U.S. domestic lumber production.

The pulp and paper sector of the forest industry has been enjoying keen market demand for several years. The demand for market pulp has been softening slightly in recent months and newsprint producers are concerned about capacity increases both in the U.S. Pacific Northwest and in British Columbia, which could force temporary reduction in operating levels.

The high level of investment continues, especially in the capital-intensive pulp and paper sector. MacMillan Bloedel Ltd., the B.C.-based Canadian forestry giant, started up its \$163-million No. 2 newsprint machine and thermo-mechanical pulp capacity at Powell River last Spring. Northwood Pulp and Timber is doubling the size of its bleached kraft pulp mill at a cost of \$270 million at Prince George. Both British Columbia Forest Products Ltd. and Crown Zellerbach Canada Ltd. are spending more than \$150 million each to increase pulp and newsprint capacity. West Fraser Timber Co. Ltd., in partnership with Daishowa Canada Ltd., is just completing a 500 ton per day thermo-mechanical mill at Quesnel in the interior of the province at a cost of more than \$80 million. Western Forest Products also has spending plans worth \$205 million to renovate and expand its old bleached kraft pulp mill on Howe Sound, just north of Vancouver.

The mining industry

Resource investment news, however, is not limited to the forest products industry. Development is expected to begin soon on several major coal projects in British Columbia. Although the province has exceptionally large deposits, their distance from tidewater and certain significant environmental problems make their development quite challenging. Currently, the only coal fields in operation are in the Kootenays in the southeast corner of the province. The trains which move the coal must cover several hundred miles to reach Roberts Bank, just south of Vancouver, where they are loaded on bulk carriers bound for export, mainly to Japan. Both B.C. Coal, the main operator, and Fording Coal have announced major expansions.

In the northeast of the province development of the extensive untapped coal fields is only just beginning. It has been estimated that they contain sufficient coal to supply the entire Japanese steel industry for 300 years. Teck Corporation of Vancouver and Denison Mines Ltd. of Toronto have signed contracts with a consortium of Japanese steel mills to supply 7.7 million metric tons of high-grade metallurgical coal between 1983 and 1998. Other operators in the same area are also expected to sign export contracts for both metallurgical and thermal coal. The capital cost of the first phase of northeast coal development will amount to \$1.6 billion in 1980 dollars, of which \$911 million will be invested by the private sector and \$741 million by the public sector for the upgrading of rail lines, the construction of railway tunnels and port facilities, the development of a new township, the installation of power lines and other elements of the industrial infrastructure. The initial northeast coal development is expected to create 10,600 new permanent jobs in Canada and 53,400 man-years of construction and equipment production work. Just over half the new permanent jobs will be in Western Canada.

Another huge coal development is in the planning stage. This one is located in the province's southern interior and likely will be the cause of considerable environmental controversy. British Columbia Hydro, the provincial power utility, is proposing a \$5-billion development of the big Hat Creek thermal coal deposits.

The Hat Creek Valley, about 200 kilometres northeast of Vancouver, contains an estimated 10 billion to 15 billion metric tons of thermal-quality coal. Hydro's project, a massive undertaking in itself, will only consume 0.3 billion tons of this over the next 35 years. Hydro is proposing an open-pit coal mine, a powerplant and associated offsite facilities that will ultimately produce 2,000 megawatts of power. If regulatory approvals are forthcoming, construction will begin probably in 1983 to meet an in-service date in 1988 for the first commercial power. A peak construction workforce of 2,800 will be needed and 1,200 new jobs will be created directly when the project is in full operation.



Forestry is an important factor in the economy of Revelstoke and many other B.C. communities.

Apart from coal, several other major mines are being planned. Feasibility studies have begun for a \$750-million Valley Copper development in the Highland Valley. Cominco Ltd. is planning an open-pit operation with production of up to 100,000 tons of ore daily. Work was completed this summer on the Lornex mine, which is 68 percent owned by Rio Algom of Toronto, to expand copper-molybdenum output by about 68 percent at a cost of about \$160 million. Cominco Ltd. is also working towards a big expansion of its lead and zinc complex at Trail and at its Sullivan mine and mill at Kimberley. The total cost by 1985 will be about \$550 million.

Metal markets, however, are weak and British Columbia's mining does not expect more than a small increase in the \$2.93 billion worth of production in 1980. The total value of metals, minerals, coal, petroleum and natural gas production in the province reached a record \$2.8 billion during 1979, up 42 percent from 1978. Metallic minerals accounted for 47.8 percent of the total; petroleum and natural gas, 27.3 percent; coal, 15.6 percent; structural materials, 6.3 percent and industrial minerals, 3 percent.

A total of \$332 million was spent on exploration and development of all minerals in the province in 1979, an increase of 135 percent over 1978. Increased commodity prices and favourable currency exchange rates stimulated exploration and new mine development in 1979. Exploration expenditures are directed primarily towards molybdenum, copper, lead, zinc, gold, silver and coal. It is expected that by the end of 1982 more than \$1 billion in new annual metal production will have come on stream. The value of industrial minerals was \$84.5 million in 1979 compared with \$59.5 million in 1978.

The oil and gas industry

The oil industry has indicated interest in resuming exploration drilling off British Columbia's coast. In the late 1960s about 7 million hectares were taken up under permits and a number of holes were drilled. However, no work has been done for more than a decade because of a federal moratorium on exploration activity there. Statements by the Government of Canada and extensive interest by several major oil companies suggest that drilling may soon be resumed. The discovery of oil and gas in the offshore area could mean hundreds of millions of dollars of direct revenue to the province and the creation of thousands of jobs. Several major projects have been proposed through which British Columbia's abundant supply of natural gas will reach new export markets. The traditional export customer is the U.S. Pacific Northwest. Over the past year, however, there has been a major decline in demand for British Columbia gas by the U.S. power utilities. Factors to blame include greater availability of domestic natural gas supplies in the United States through heightened exploration programs, the availability of residual fuel (which has been responsible for some fuel substitution) and higher Canadian prices.

The weakening demand by U.S. power utilities had a direct impact on the Government of British Columbia's oil and gas revenues: from \$599 million in 1979-80, they dropped by 25 percent to \$447 million in 1980-81, and the province expects revenues from that source to decrease by about 36 percent in 1981-82. No significant market recovery is expected until 1983-84.

This situation makes market diversification important. Dome Petroleum of Calgary announced that it had signed an agreement in principle with Nissho Iwai Corporation of Japan for the sale of 2.6 million metric tons of liquefied natural gas (LNG) annually for 20 years. The export is subject to the approval both of the federal and provincial governments. Dome has estimated that the pipeline, plant, terminal and ships required to make those deliveries would involve an investment approaching \$3 billion. Natural gas would be carried by pipeline from northeastern British Columbia to a terminal site on the northern coast of the province. There the gas would be refrigerated and loaded on large tankers for export. If approvals are obtained by early 1982, Dome maintains that construction would begin in the middle of that year and be completed about three and a half years later. According to Dome, the total value of the LNG under the agreement, is estimated at \$26 billion, of which at least \$15 billion would go to the province of British Columbia.

Dome is also heading a consortium that hopes to build a large petrochemical complex on the coast using natural gas as feedstock. It would export chemical building blocks used in the manufacture of plastics. The project is also a huge one, involving several hundred miles of pipeline and a shipping terminal. Total cost is projected to be about \$2 billion.

Yet another potential venture to export natural gas is the Rim Gas Project. The partners are PetroCanada, Westcoast Transmission of Vancouver and Mitsubishi of Japan. This is another \$2-billion project involving the export of liquefied natural gas by tanker by 1985-86. Still bigger is a project involving Westcoast Transmission, PetroCanada and the British Columbia Resources Investment Corporation, to produce 50,000 barrels a day of synthetic crude oil from British Columbia coal. The group, with the financial assistance of the federal Department of Energy, Mines and Resources is examining promising U.S. technological advances in coal liquefaction being accomplished in a production experiment in Kentucky.

The fishing and agriculture industries

British Columbia's fishing industry has been going through difficult times: in 1980 the estimated value of the catch was \$250 million, less than half that of the previous year's record \$566 million. A combination of unfortunate factors has beset the industry, including poor markets, rising costs, depleting fish stocks and too many boats.

A federal royal commission of inquiry has spent several months seeking solutions to the industry's problems. Because of the fishing

industry's over-capacity, the federal Department of Fisheries has announced a program to buy back fishing boats. When this occurs, the boats are sold for other uses and the important licence that entitles the owner to fish is cancelled. So far this year, \$3.5 million has been spent to retire 26 boats. This has had only a small impact on the problem, since there are more than 7,000 fishing boats operating in the province. The federal department has also taken tough and controversial measures to protect the fish stocks: closing down part of the fishery. The closure is aimed particularly at the important chinook salmon, which is endangered. Restrictions have also been applied to sports fishermen who may catch no more than four chinook a day or 30 a year.

British Columbia also has a significant agricultural economy, which includes a wide variety of products. According to farm cash receipts, which amounted to approximately \$747 million in 1980, horticultural crops represent the single most important source of income for British Columbia's farmers, followed by dairy products, poultry and eggs, cattle and calves, and grains and oilseeds. Agricultural production is highly specialized by region with the Peace River District concentrating on grain, the Okanagan Valley on tree-fruit crops, the Fraser Valley on dairy products, poultry, berry crops and pork, and the Southern and Central Interior of the province on beef cattle.

Manufacturing industries

Though British Columbia clearly has a resource-oriented economy, its manufacturing sector deserves some mention. The province's manufacturing industries are less dependent on exports than are the resource industries. Manufactured goods produced in the province are more oriented toward local or regional consumer and investment goods markets.

The manufacturing sector is a significant employer: excluding the resource-based manufacturing industries such as wood products, paper and allied products and fish processing, secondary manufacturing in British Columbia employed approximately 77,000 people in 1980. The largest single industry employer was food and beverages (16,500), followed by metal fabricating (11,000), primary metals, mainly smelting and refining (10,200) and transportation equipment (8,500).

According to the estimated value of shipments recorded in a recent survey of the province's manufacturing industries, food and beverages (excluding fish products) was the leading industry, followed by petroleum and coal products, primary metals, metal fabricating, transportation equipment and machinery. Recently, the fastest growing industries have been chemicals and non-metallic minerals, which owe their growth to the strong performance of the pulp and paper and construction industries. The primary metals industry has also experienced strong growth largely due to the performance of Alcan's smelting operations at Kitimat.

Service industries

Tourism, British Columbia's third largest industry, is one of the fastest growing sectors of the provincial economy. Comprising 10,000 businesses and employing approximately 65,000 people, tourism generated \$1.85 billion worth of business in British Columbia in 1980, and the province's tourism officials, whose immediate goal is to reach \$2 billion, expect the value of tourist business to grow by 12 percent in 1981.

In addition to the millions of Canadians who cross the Rocky Mountains each year for a visit, millions of foreign tourists are drawn to British Columbia, mainly from the United States. An increasingly important volume of business is being generated by overseas tourists: in 1979 about 414,000 overseas tourists visited British Columbia of whom 26 percent were from the United Kingdom, 18 percent from Japan, 12 percent from West Germany and 10 percent from Asian countries other than Japan.

Given that the tourist season has been limited to July and August, industry and government officials are seeking to extend the season into the Spring and Fall. Federal and provincial government authorities are actively promoting the development of the industry. An example of this support is the \$50-million federal-provincial Tourist Industry Development Subsidiary Agreement, signed in 1978, which provides forgivable and low-interest loans. A major recipient of these funds has been the big Whistler destination ski resort, just north of Vancouver, that is being developed as a world-class year-round facility.

British Columbia is growing too as a financial centre. The Vancouver Stock Exchange (VSE), now regarded as the pre-eminent venture capital market in North America, enjoyed phenomenal growth in 1980: the value of shares traded increased from \$1.4 billion in 1979 to more than \$4.4 billion last year. To put the VSE's performance into perspective, the VSE is second only to Canada's largest exchange, in terms of both the volume and value of shares traded. In 1980, the volume of shares traded at the VSE reached 1.7 billion and their value about \$4.4 billion: the corresponding figures for Toronto were 2 billion and \$29.5 billion, for Montreal, 299.1 million and \$3.8 billion and for Calgary, 162.3 million and \$469.7 million. The value of shares traded at the VSE increased 1,305 percent between 1975 and 1980, whereas that of the Toronto Stock Exchange and the Montreal Stock Exchange increased 622 percent and 179 percent, respectively. Share volumes also rose sharply during that period, almost doubling from 900 million to 1.7 billion. Since then, the trading pace has stabilized at about 7 million shares on a busy day compared with 15.3 million shares on November 21, 1980, the exchange's record day. The VSE will soon move to a new \$5-million home where it will be equipped to handle the large volume of business without the irritating delays created by excessive paper work.

It is estimated that about 20 percent of the money invested on the VSE comes from



The Port of Vancouver is B.C.'s principal container facility.

Europe, including Great Britain, 20 percent from Eastern Canada, 20 percent from investors in British Columbia and 35 percent from the United States, while 5 percent is professional trading. Most of the VSE's business is in financing oil and gas exploration companies.

A description of British Columbia's economy would be far from complete if no mention were made of its deep-sea port facilities. British Columbia has several of these including Vancouver, Roberts Bank, Victoria, Nanaimo, New Westminster, Port Alberni and Prince Rupert. All of these facilities are open year-round.

Tens of million tonnes of cargo are loaded and unloaded at British Columbia ports each year. Leading the list of export products are coal and grain. Container traffic is also important, principally at Vancouver. Authorities in British Columbia and in the Canadian Government are not, however, satisfied with current handling capacity on the West Coast. In spite of the impressive volume of cargo that passes through the ports — in 1979, approximately 53 million tonnes of export cargo and 6 million tonnes of import cargo — several projects are now being undertaken to eliminate bottlenecks that have developed over the years and to facilitate large projected increases in Canada's Pacific trade.

A major expansion of bulk-handling facilities at Roberts Bank has been planned involving the creation of three additional bulk-handling terminal sites. Most of British Columbia coal exports are handled by the Roberts Bank Superport, which currently has the capacity to load 10 million tonnes of British Columbia coal and Alberta petroleum coke a year.

Also being expanded and improved are the facilities at Nanaimo. A 50-hectare, three-berth terminal will supplement the existing

15-hectare inner harbour terminal and the outer portion will serve as a forest products shipping terminal.

Industry representatives and government officials are nothing less than sanguine about the projected development of the port at Prince Rupert. Though the proposed handling facilities are most commonly seen as serving the coal and grain export business, their links with an extensive railway and highway infrastructure will probably lead to fairly intensive handling of other products such as sulphur, potash, lumber and woodchips. Prince Rupert is also being seriously considered as a liquefied natural gas processing and export terminal. Considered by many as an ideal site, Prince Rupert offers several advantages to exporters over other British Columbia ports: it is 700 kilometres closer to Japan than Vancouver; it has the deepest natural harbour in the province and the dock will be designed to load vessels of up to 150,000 dead weight tons; and Ridley Island offers 320 hectares of which only 40 will be used for grain and coal terminals.

A recent forecast by the Conference Board of Canada maintains that British Columbia, which largely escaped the national economic slowdown in 1980, will enjoy a 3.6 percent increase in real output in 1981. Other forecasters have suggested a similar growth rate based on a moderate recovery of the U.S. economy, good economic growth in Japan and favourable conditions in other markets such as Australia, Taiwan and South Korea.

Capital investment is expected to increase 2 to 4 percent above last year's figure of just over \$9 billion. Resource development and related infrastructure projects are expected to be major contributors to the increase in investment.

The changing pattern of Canada-U.S. financial flows

by Robert M. Dunn, Jr.

For generations the volume of funds flowing between Canada and the United States has been nothing less than massive. Between 1960 and 1975, the pattern of financial flows between the two countries was roughly short-term south and long-term north. In the last half of the 1970s, however, this pattern changed as funds at all maturities flowed into Canada from the United States.

Americans and Canadians typically think that direct investment accounts almost entirely for capital flows between the two countries, an impression reinforced by the conspicuous and often controversial investment activities of multinational corporations. In recent years, however, financial capital generated by bond and treasury bill issues and the acquisition of non-controlling equity interests has far outpaced direct investment. In fact, portfolio investment has been the dominant form of Canadian external financing, especially long-term bonds issued by Canadian hydro authorities and other public enterprises.

Some facts and figures on net investment flows between the two countries in the 1970s illustrate the predominance of portfolio investment. Net direct investment¹ from the United States, which reached \$477 million in 1971, decreased throughout the first half of the decade and became negative during the last half (-\$507 million in 1979), whereas net portfolio investment from the United States was large and positive throughout the decade rising from \$2.3 billion in 1971 to \$5.7 billion in 1979. In fact, throughout the 1970s average net direct investment per year from the United States was -\$177 million, whereas the average for portfolio investment was \$3.5 billion. The flows of portfolio capital included both short- and long-term items, and took many forms.

Many Canadians fear that the net flows of capital into Canada from the United States and elsewhere have been large enough to make the country an unacceptably large net debtor to the rest of the world. However, inflation has made the real growth of Canadian indebtedness considerably smaller than the numbers appear to indicate. The second graph, which shows the stock of Canadian indebtedness to the rest of the world in contrast to the first graph which shows annual flows of capital, shows that Canada's net debt to the rest of the world rose from \$24 billion in 1966 to \$69 billion in 1979. Indebtedness to the United States dominates that growth, Canada actually being a slight creditor to countries other than the United States. These figures, however, are in current dollars and cover a period of rapid inflation. Since the Canadian

price level, as measured by the Consumer Price Index, rose by about 135 percent during a period in which Canada's nominal indebtedness grew by about 188 percent, the real growth of Canada's indebtedness was only about 38 percent, somewhat less than the real growth in the Canadian economy. Expressed another way, Canada's net indebtedness to the rest of the world decreased from 38.8 percent of the Gross National Product in 1966 to 36.6 percent in 1979. It should be noted, however, that Canada's indebtedness may be somewhat understated in the graph because book values rather than market values were used in the figures for direct investment.

Given the extent to which the capital markets of Canada and the United States are integrated, the flow of funds between the two countries has historically been very sensitive to changes in the markets, in particular changes in interest rates. One recent study in the United States indicated that a shift of one percentage point in the Canada-U.S. interest rate differential will attract over \$400 million in short-term capital over a period of about three months, as managers of financial institutions respond to changing incentives. This was not the first study to have suggested a similar response to relative interest rates.

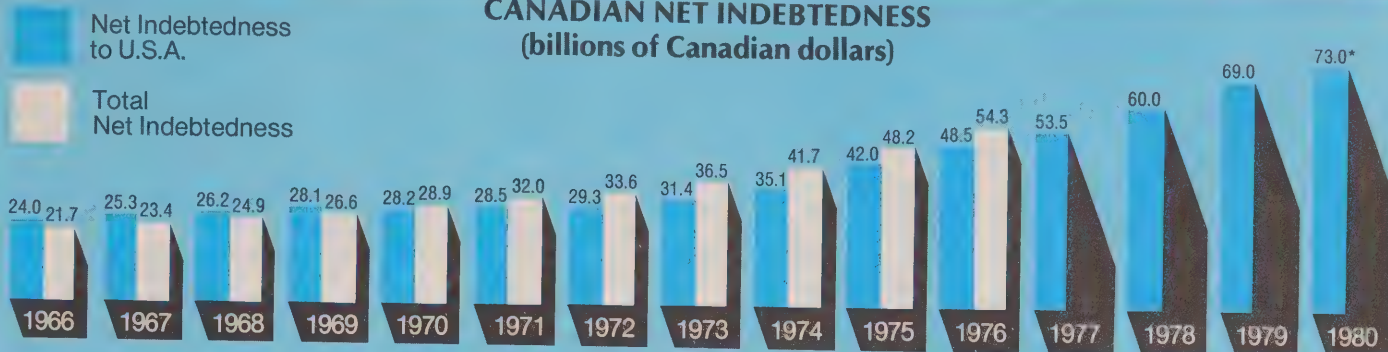
From 1971 to 1979 Canadian interest rates, particularly for long-term maturities, generally exceeded U.S. rates. This resulted in net inflows of capital into Canada throughout the decade, valued at approximately \$30 billion. Contributing to that movement of capital was Canada's reputation as one of the safest countries in which to lend money.

It may come as something of a surprise to some people that a country as developed and wealthy as Canada imports such vast amounts of capital. Economists typically associate large-scale borrowing with the early stages of development. Developed or high per capita GNP countries are expected to be net lenders rather than net borrowers. Canada, which is highly developed and has one of the world's highest levels of per capita GNP, has not followed this pattern and continues to be a large net borrower.

Canada's continuing need for foreign capital is explained by the fact that its economy has consistently invested more than it has saved. The primary role of the flow of capital into Canada is to finance the current account or trade and services deficit, which totalled \$25 billion (U.S.\$) between 1970 and 1980. If Canada could not borrow abroad, it would be forced to restrain its imports to what it could

¹ Readers interested in foreign direct investment statistics for Canada should read another article in this issue, by Ted Zahavich, which includes a discussion of the relative merits of gross as opposed to net statistics.

CANADIAN NET INDEBTEDNESS (billions of Canadian dollars)



Source: Bank of Canada Survey, April 1980, p. 5-135.

* Author's estimate based on 1980 current account results plus an assumed rate of net retained earnings of \$2 billion, which was typical in the 1970s.

afford with export revenue, and investment in plant and equipment would be limited to financial resources generated domestically and saved out of current income. Borrowing abroad eliminates this constraint because the current account deficit can be financed, thus allowing a net flow of resources into the economy and investment in excess of current saving.

A number of factors explain Canada's investing more than it saves, one of the most important being the fastest labour-force growth among the major industrialized countries. The entrance into the labour market of the children of the baby boom and large-scale immigration increased requirements for investment in plant and equipment to prevent excessive unemployment and merely to main-

tain the capital-labour ratio. During times of fast labour growth, exceptionally high levels of investment are needed to increase the capital-labour ratio and thus improve labour productivity.

Also underlying Canada's high level of investment has been the capital-intensive nature of many of Canada's fastest growing industries. This is most clearly the case for energy-related industries as well as resource industries generally. The situation in the United States, for example, is quite different because the most rapidly growing U.S. industries are in the service sector, which is considerably less capital intensive.

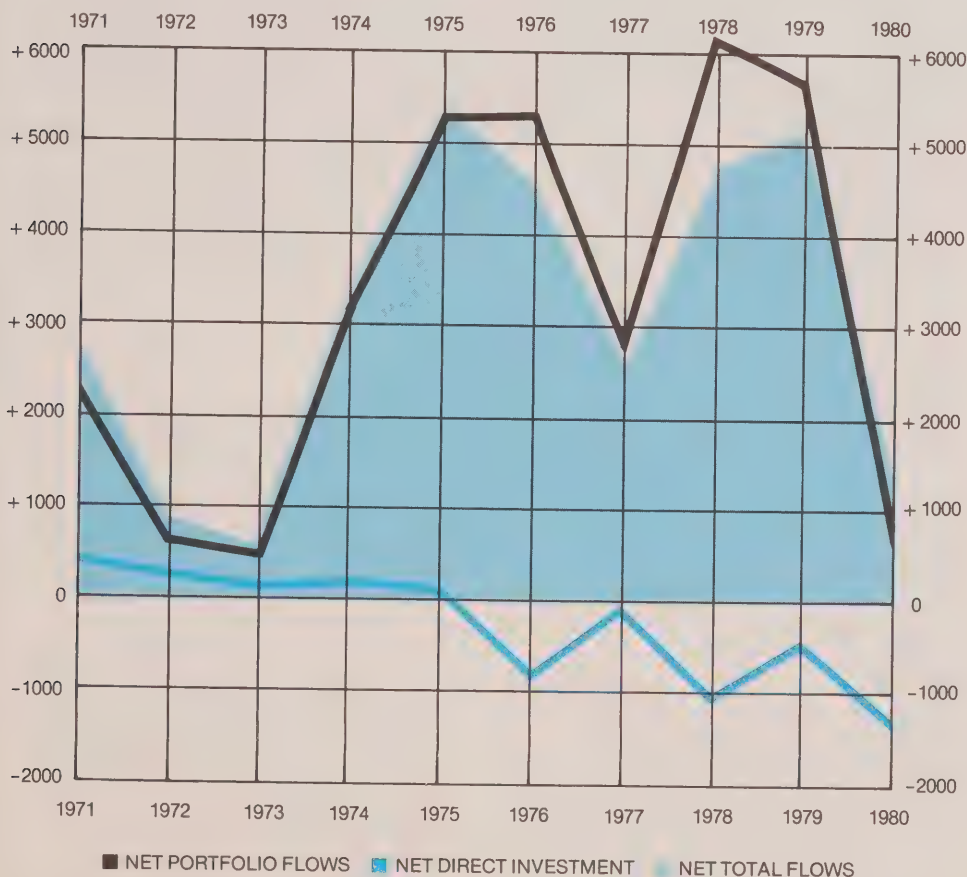
High levels of investment are not, however, the only cause of Canada's need for foreign capital. The high rate of household and pri-

vate saving in Canada, which is higher than in the United States, has been more than offset by public sector dissaving. Canadian public sector deficits have recently represented a higher percentage of GNP than in the United States and have drained funds and resources from private investment. Some of those deficits, however, are explained by major public investment projects, particularly in the energy sector. An accurate estimate of the operating or current budget deficit of the Canadian public sector would exclude such investments, but would include depreciation of previous investments as a current expense. Although most governments have such public investment projects, Canada's may be relatively larger.

To the extent that various levels of government borrow from the private sector to finance deficits, funds saved in households and businesses are not available for private investment. This in turn leads to a situation where private investment must be financed by borrowing abroad. Some public sector borrowing may actually be arranged in foreign capital markets, but the basic process is the same. Large public sector deficits in Canada have been an important source of the demand for borrowed funds which has required large-scale foreign borrowing. If public and private sector borrowing needs in Canada exceed the funds available through domestic saving, the demand for funds spills over into the New York capital market.

Financial intermediation

The relationship between Canadian and U.S. capital markets includes both a sizeable net flow of funds into Canada and a much larger flow of funds in both directions. As mentioned at the beginning of this article, the general pattern has been that, within the large net flows from the United States to Canada, long-term funds flow north but short-term funds move back and forth across the border. During the 1960-75 period, there was a rough inconsistent pattern in which short-term funds flowed south and a much more regular pattern of long-term funds flowing north. In the latter half of the last decade, however, this pattern changed.



Source: Quarterly Estimates of Balance of International Payments

New York has, to some extent, acted as a financial intermediary between Canadian savers who want to hold relatively liquid short-term assets and Canada borrowers who want to sell long-term liabilities. The long-term flow has been considerably larger than the short-term flow, thus producing the net capital flow to Canada. To the extent that New York borrowed short-term and lent long-term in Canada, it acted as an intermediary, bridging the gap between Canadian savers who preferred relatively liquid assets and Canadian borrowers of long-term funds. In that sense, it could be said that the United States exported liquidity to Canada. This pattern was not as clear, however, during most of the last few years, as both long- and short-term capital flowed into Canada from the United States.

A major cause for the earlier pattern of capital flows between Canada and the United States was the relative interest rates in both countries for different maturities. Normally, long-term interest rates exceed short-term yields because of the reduced liquidity and greater risk associated with long-term bonds. In Canada, however, the margin between long- and short-term yields between 1960 and 1975 was somewhat greater than in the United States, a phenomenon that economists call a steeper yield curve. This difference in interest rate margins was a prime moving force behind the flow of short-term funds south and long-term funds north. Canadian long-term interest rates almost always exceeded U.S. bond yields by a sizeable margin, whereas short-term interest rates were generally similar in both countries.

A recent survey of major participants in Canadian-U.S. financial flows provided some explanations for the greater Canadian margin between long- and short-term interest rates between 1960 and 1975.² Investment managers in both countries maintain that Canadian savers and portfolio managers are more wary of risks than their U.S. counterparts and that they tend to maintain more liquid portfolios, thus creating a relatively strong demand for short-term assets and weaker demand for bonds and other long-term claims in Canada. Also identified as contributing to the greater Canadian margin is the industrial background of major borrowers in Canada. As noted above the most rapidly growing industrial sector in Canada is resources, whereas in the United States it is the service sector. Resource-based industries typically need long-term funds, whereas service industries can often operate with short-term funds. The relatively longer average maturity of the Canadian demand for funds increases bond yields relative to short-term interest rates in Canada.

Furthermore, Canadian capital markets have been perceived as being somewhat thinner and more erratic than those in the

United States, although it would be hard to imagine anything more erratic than U.S. capital markets during the last few years. The greater variability of yields in Canada, particularly in secondary markets which have often been quite illiquid, introduce an additional element of risk for both borrowers and lenders. The latter group fears holding long-term assets because they may be difficult or expensive to sell before maturity and consequently tend to avoid lending for long periods if they may need funds in the meantime. Borrowers try to avoid having to roll over short-term loans to finance long-term projects and try to borrow for the full period for which the funds will be needed, thus avoiding the risk of having to repay old loans and arrange new ones in unsettled capital markets. Therefore, lenders are encouraged to operate with relatively short securities and borrowers to seek long-term maturities. The resulting shifts in the demand and supply of short- relative to long-term assets creates higher long-term and lower short-term interest rates. Lenders drive down money market yields by trying to buy primarily short-term assets, and borrowers increase long-term yields by trying to sell bonds instead of short-term paper.

Debt management policies have been perceived as having differed in a way that encourages a larger spread between long- and short-term interest rates in Canada. Though some might question this analysis, the Government of Canada apparently has borrowed at considerably longer average maturities than has the U.S. Treasury.

Certain institutional and historical factors have also influenced foreign borrowing and lending decisions in Canada. For example, the elimination in 1975 of the Canadian withholding tax on long-term bond interest payments to foreigners sharply increased U.S. purchases of Canadian bonds. In addition, the borrowing decisions of Canadian subsidiaries of U.S. firms can be influenced by balance sheet considerations and the views of the parent corporation, although such subsidiaries would presumably be encouraged to borrow where interest rates were lower.

Recent changes in interest rate patterns

The traditional pattern in interest rates in Canada and the United States changed significantly during the latter half of the 1970s. The margin between Canadian long- and short-term yields declined sharply and became smaller than the margin in the United States. This occurred because a sharp increase in Canadian short-term interest rates was accompanied by a much smaller increase in bond yields. Though similar, the pattern was considerably weaker in the United States with the result that capital flows between the two countries changed. Canadian short-term capital inflows became large and sometimes exceeded long-term inflows. The earlier situation in which New York acted as a financial intermediary between Canadian borrowers and lenders came to an end and Canada

imported capital at all maturities. During 1980, however, the previous pattern returned, at least temporarily, as short-term funds flowed from Canada to the United States and long-term funds flowed north.

A number of factors could account for the changing relationship between interest rates in the two countries. First, as mentioned above, the 1975 elimination of the Canadian withholding tax on payments to foreigners of interest income on long-term bonds, but not on short-term assets, undoubtedly increased U.S. demand for Canadian bonds. This would tend to drive yields on such bonds down and cause the shift in yield patterns. In addition, inflationary expectations in Canada may have declined due to what appears to be the Bank of Canada's firm commitment to monetarism. If Canadian investors expect less inflation, they are also likely to expect lower interest rates, which would encourage purchases of long-term bonds in hope of earning capital gains when yields decline. Lower inflationary expectations are generally viewed as encouraging a narrower (or negative) spread between long- and short-term yields as people shift portfolios toward longer maturities where larger capital gains are possible if interest rates fall.

Another possible explanation is that Canadian capital markets are maturing so that investor preferences for highly liquid assets may be decreasing. As Canadian capital markets become larger and more stable, one might expect the margin to narrow as investors become more willing to hold long-term assets.

Readers should keep in mind, however, that any analysis of yields in the two countries is subject to change. U.S. capital markets have been in considerable turmoil due to rapid inflation, attempts to impose tight money in periods of huge federal government borrowing, and constantly shifting investor expectations. One could argue that capital markets in both countries, but particularly in the United States, have been so unsettled in recent years that current comparisons of interest relationships do not represent anything which is likely to be permanent.

Outlook

Canada's investment needs relative to its ability to generate internal savings will determine whether or not it will continue to rely heavily on foreign capital in general and U.S. capital in particular. Now that most of the children of the baby boom have entered the labour force and immigration policy is relatively tight, Canada's labour force growth is likely to slow down. This should reduce requirements for investment in plant and equipment to avoid excessive unemployment and maintain the capital-labour ratio. The capital-intensive nature of Canada's major energy projects, however, may maintain Canada's needs for capital. Canada's savings rate, which will be greatly influenced by the public sector, will determine whether the economy can finance its own investment needs or continue to rely on external funds.

² Robert M. Dunn, Jr., *The Canada-U.S. Capital Market*, C.D. Howe Research Institute, Montreal, pp. 67-77. The arguments in this article and a range of related issues are discussed in some detail in this volume.

More foreign investment but . . . less foreign control

By Ted Zahavich

A curious phenomenon developed during the last decade or so: though foreign investors continued to pour billions of dollars worth of direct investment into Canada, the level of foreign ownership and control of the Canadian economy decreased. This is explained, in part, by the takeover of a number of large foreign-controlled companies by Canadian-controlled companies, and by, in part, the more rapid growth of Canadian-controlled firms in general. An increasing amount of foreign funds has also been invested in Canada in recent years for the purpose of acquiring minority equity positions in Canadian public companies through the purchase of outstanding and new shares.

In recent years, it has often been suggested that Canada no longer attracts foreign investment as it once did. Many of those who hold this opinion base their argument on Canada's net foreign direct investment statistics. A close look at those statistics, however, reveals that use of the net figures can be very misleading. For example, though net foreign direct investment statistics have fluctuated markedly in recent years, it is clear that gross outflows and not gross inflows are responsible for this pattern.

Gross outflows, which do not include investment by Canadians abroad, are a return of all or part of the original investment to the parent company, including repayment of loans and sale of subsidiaries. The latter has accounted for the most dramatic fluctuations in gross outflows, which occurred in 1976 and 1978. In 1976, the Canada Development Corporation acquired the Canadian assets of Tenneco Oil and Minerals Ltd. (U.S.-owned), Inter-City Gas Ltd. acquired Canadian Hydrocarbons Ltd. (European-owned) and Field Stores acquired Zellers Ltd. (U.S.-owned). In 1978, PetroCanada Inc. acquired Pacific Petroleum Limited (U.S.-owned), Nova (formerly the Alberta Gas Trunk Lines Co. Limited) acquired Husky Oil (U.S.-owned) and Canadian Forest Products Limited acquired Prince George Pulp and Paper Ltd. and Intercontinental Pulp Company, both U.S.-owned. Large transactions such as these, which run into the hundreds of millions of dollars, tend to tip the foreign capital scales and, in 1976, created an exception to the rule because, for the only time during the past 30 years, gross outflows exceeded gross inflows that year. It should be mentioned that these transactions were for the most part initiated by Canadian buyers, not by foreign sellers.

In 1981, because of a number of exceptionally large acquisitions of foreign-controlled firms by Canadian-controlled firms, such as the purchase of Canadian International Paper Co. (U.S.-controlled) by Canadian Pacific Enterprises Ltd. for \$1.1 billion and the purchase of Petrofina Canada Ltd. (Belgium-controlled) by Petro-Canada for \$1.5 billion, the gross outflow of foreign direct investment may again exceed the gross inflow. However, the gross inflow will again be large.

In the past five years, almost \$12 billion of direct investment has entered Canada. This investment reached \$2.7 billion in 1978 and

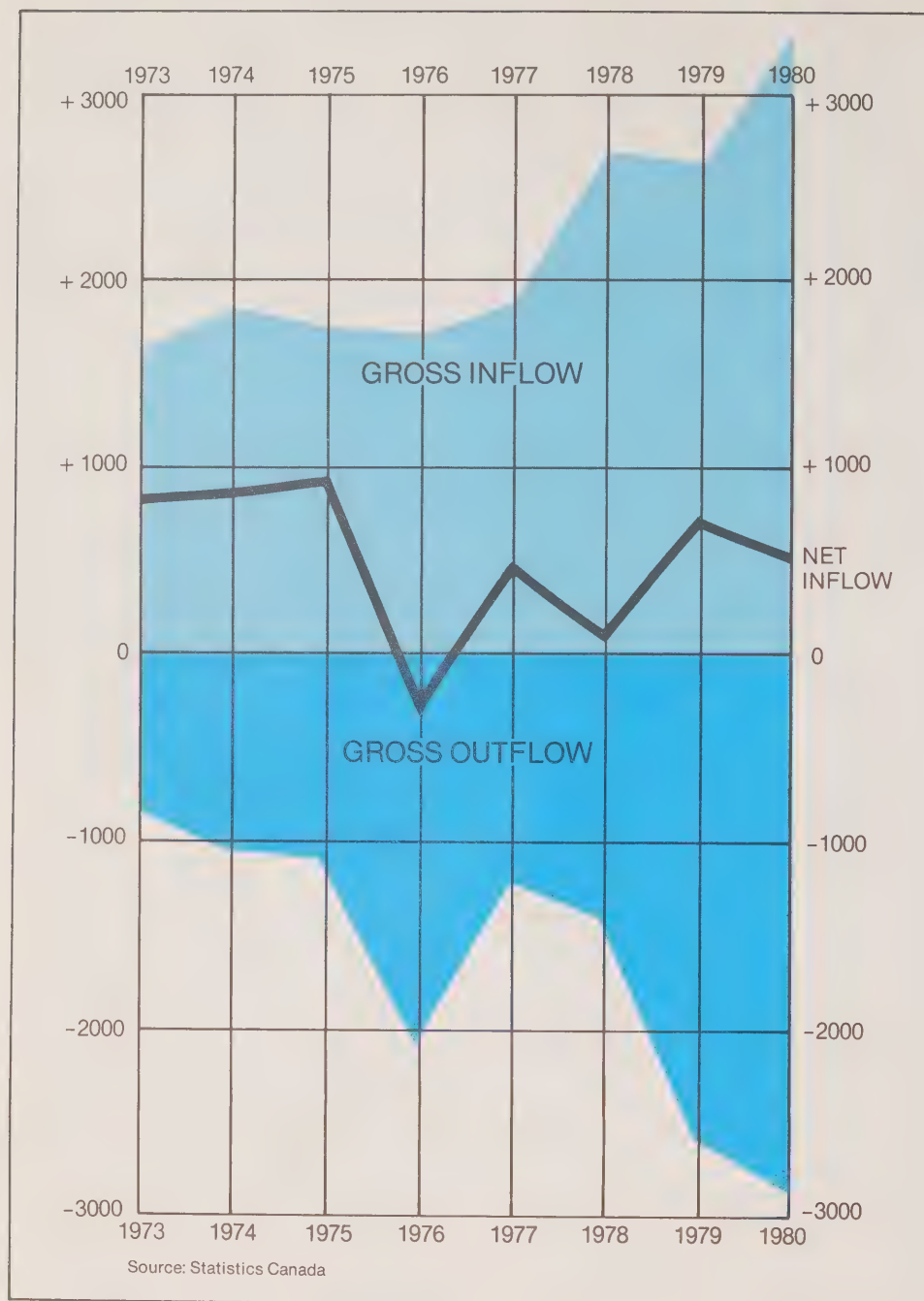
dropped slightly to \$2.6 billion in 1979. While final figures for 1980 are not yet available, the data suggest another year of large gross inflows of foreign direct investment, again in the neighbourhood of \$2 billion to \$3 billion.* Gross inflows are the regular type of investment made by a foreign parent company in a subsidiary such as loans or equity investment. In 1980, there were several transactions that resulted in large inflows. For example, there was the purchase of a one-third interest in Brunswick International Paper Co. by Japanese companies. Under a rights offering, Exxon Corp. invested over half a billion dollars in its Canadian subsidiary, Imperial Oil Ltd. Another large transaction which resulted in a large inflow was the purchase by Superior Oil Ltd., a U.S. company, of the shares in Canadian Superior Oil Ltd. which it did not already own. In addition to having an impact on the flows of direct investment, the sheer size of investments of this type can significantly affect the overall balance of payments as well.

The United States has been the largest foreign investor in Canada and not surprisingly continues to make a large addition to that investment. (It should be noted that the balance of payments measure of direct investment does not include the expansion of existing investments through the reinvestment of earnings.) But recently, European investors, particularly German and Dutch, have committed a large amount of funds for investment in Canada. Several factors account for the continuing heavy inflow of foreign capital, including Canada's wealth in natural resources, particularly energy, its mature manufacturing sector, a highly sophisticated service sector, a well-developed communications and transportation infrastructure, and close proximity to a very accessible U.S. market.

Different foreign investors have provided different reasons for explaining Canada's drawing power. Mr. Heinz Durr, Chairman of AEG Telefunken, recently attributed his company's interest in Canada to its strong industrial base, the accessibility to the U.S. market and the favourable exchange rate of the Canadian dollar, which gives exporters using Canada as a base a significant competitive edge. Mr. Toshiro Tomabechi, Executive Vice-President of Mitsubishi Corp., was quoted as having said at a symposium in Toronto that "...considerations of energy cost, technologi-

The author is an economist with the Policy Research Division of the Agency's Policy, Research and Communications Branch.

**Just before going to press the author obtained 1980 data on gross foreign direct investment inflows, which reached \$3.4 billion. This figure is higher than that predicted in the article.*



cal capacity and long-range potential make Canada an especially attractive site for operations." Another noteworthy source of opinion on Canada as a host country for foreign investment is the Geneva-based European Management Forum. According to EMF's 200 economic, social and political criteria, Canada ranked a close fifth behind the United States, Japan, Switzerland and West Germany. Following behind the top group of five were such countries as the Netherlands, France, Sweden, Britain, Denmark, Italy, Portugal and Greece. A fourth comment on Canada's economic well-being was published by the Nikkei Sangyo Survey. This bi-weekly Japanese report evaluated countries on three aspects: market size, economic environment and investment climate. The results showed that Canada ranked third behind West Germany and the United States.

What is most surprising about the large inflow of foreign funds into Canada in the last few years is that it has not caused a major increase in the level of foreign ownership and control of the Canadian economy in spite of the re-investment of retained earnings, which has accounted for most of the foreign direct investment in Canada since the early 1960s. In fact, the reverse has occurred, the level of foreign ownership and control in Canada having steadily decreased since the early 1970s.

There are a number of methods that can be used to indicate the level of foreign control of the Canadian economy. Probably one of the best is to use "assets", as collected under the Corporations and Labour Unions Returns Act. This measure shows that in 1970, 36 percent of the non-financial corporate assets in Canada were controlled by foreigners. By 1978,

this figure had dropped to 30 percent, and today is probably in the area of 26 percent to 28 percent.

At the end of 1978, the value of assets in Canada controlled by foreigners was \$100 billion. Six countries accounted for over 92 percent of the \$100 billion: the United States (\$73.9 billion), the United Kingdom (\$9.5 billion), the Netherlands (\$4.0 billion), France (\$2.4 billion), West Germany (\$1.4 billion) and Japan (\$1.4 billion). While the United States was by far the most important source of foreign investment, other countries, notably West Germany and the Netherlands, have recently increased their stake in Canada at a faster rate. In 1978 alone, the value of German-controlled assets jumped 30 percent, and that of the Netherlands, 27 percent.

Over 43 percent of U.S. investment in Canada is in manufacturing, over 24 percent in oil and gas, and over 8 percent in mining. The various service industries, such as retail trade and utilities, make up the remainder. U.K. investment in Canada is also concentrated in manufacturing, but the service sector has recently become important principally as a result of the entry into the Canadian market on a large scale of two major U.K. retailers, Marks and Spencer and Boots Drugstores. German investment in Canadian manufacturing jumped 56 percent in 1978, but is still concentrated in wholesale trade mainly because of the activities of Volkswagen Canada Ltd.

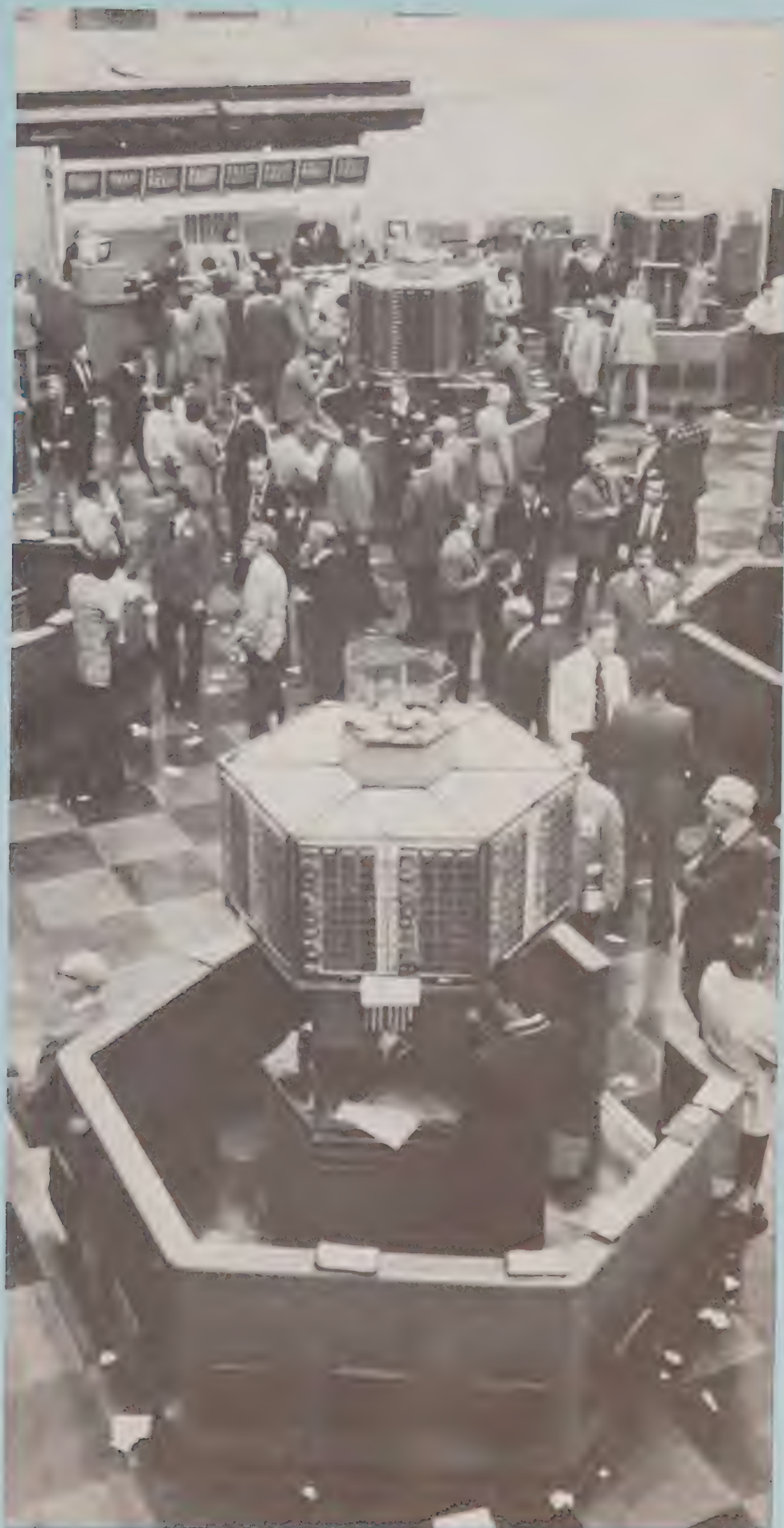
But the story behind foreign investment in Canada in recent years would be far from complete if it did not include an analysis of another type of foreign investment: the purchase of minority equity positions in Canadian public companies by foreigners. Foreign investors have been accumulating shares in a wide range of Canadian companies at a rapid rate. For example, in 1980, foreign investors purchased \$7.7 billion worth of outstanding shares in Canadian companies, sold \$6.7 billion during the year, for a net year-end position of \$1 billion. This is by far the largest annual accumulation recorded by Statistics Canada. The previous record (\$300 million) was established in 1979 when foreign investors purchased \$4.4 billion worth of outstanding shares in Canadian companies and sold \$4.1 billion.

Furthermore, foreign investors were also active buyers of new share issues of Canadian companies. In 1980, they purchased just under \$500 million worth of these issues. Again, this is a marked increase over the \$160 million recorded in 1979. Another \$2 billion was invested by foreigners through the purchase of bonds and debentures of Canadian companies, an increase of \$800 million from 1979.

In summary, while foreign direct investment in Canada continues to grow, foreign control of Canada's non-financial industries is decreasing. With the expected construction of energy-related mega projects during the next 20 years, the need for new capital formation in Canada will be great. Foreign investors will still have a role to play in meeting these requirements.

Canada's investment program, 1981-2000

by Andrew G. Kniewasser



*The author is president of the Investment Dealers
Association of Canada.*

Canada is on the threshold of the largest, most broadly based and innovative two decades of new capital investment in the country's history. We expect to put in place \$1.5 trillion of new investment between 1981 and 1990 and another \$4.7 trillion between 1991 and 2000.

New capital investment, expressed as a percentage of gross national expenditure is now in the order of 23.5 percent. This ratio will rise to over 25 percent during the 1980's and to over 27 percent in the 1990's. (See table 1.)

The composition of the program

These forecasts, when measured as percentage of gross national expenditure, indicate some interesting and reassuring trends in the Canadian economy.

Throughout the 1980's and 1990's substantial increase is expected in business investment in new plant and equipment. Indeed, if one defines "productive investment" narrowly, as investment by business on new plant and equipment, the outlook is for very considerable progress in Canada in the application of capital to productivity increase and growing international competitiveness. In the decade of the 1970's, 62 percent of all new investment in Canada was "productive investment" by business. In the 1980's, the figure will be 70 percent and in the 1990's this trend will continue and this key ratio will be in the order of 76 percent. These ratios are not sufficiently well known in Canada as yet but they are by far the most significant indicator in our entire long term economic outlook.

Industry sectors

The 1981-2000 capital investment program is clearly unprecedented in size and unprecedented in its breadth and diversity. There will be large requirements for new capital over a broad range of Canadian industry and commerce (see table 2) and in all parts of Canada (see table 3). Energy related investments will comprise some 36 percent of all new business investment over the next 20 years. Activity will remain strong across the country and expand at very high rates in Newfoundland and on our northern frontiers.

In summary, we foresee throughout the 1980's very rapid growth in Newfoundland and the West with something over one-half of all new investment taking place in these provinces. But all provinces are growing and we expect that Ontario and Quebec will still account for over 50 percent of real output by 1990.

The investment community

There are, of course, many consequences of such a program for the Canadian and international investment communities. Financing \$6.2 trillion of new capital investment over the next 20 years is a considerable challenge and responsibility. In Canada, the financial

industry is well advanced in gearing up for the program. Rates of personal and corporate savings remain very high by international standards and the facilities required to get the job done are rapidly being put in place.

The Canadian financial system is decentralized and characterized by a philosophy of separation of function which encourages competition among the functions of investment, banking, insurance and fiduciary services. Suppliers and users of capital, as a result, have a wide choice of opportunity as they seek to fulfill their needs. There has been a tendency to underestimate Canada's capacity to finance capital requirements from domestic savings and systems. It is interesting to note that, on a relative basis, we now raise more than twice as much new capital through securities markets in this country than any country in the world.

Looking ahead we are planning to finance, on a net basis, some 94 percent of the 1981-90 capital investment program from Canadian savings. Indeed, our studies indicate that we can expect to become net capital exporters in the mid 1990's.

This assessment of our rapidly growing capacity to generate savings in Canada does not, however, imply in our minds any lessening in Canada's traditional interest and participation in international trade and finance. Rather, we view our role in finance in future as larger and, indeed, increasingly attuned to opportunities at home and abroad. As a corollary, many Canadians view our growing ability to generate capital in Canada as the principal means of improving their ownership and control over a range of existing and new industries. It is now quite clear that very substantial progress can be achieved in this respect in future through the marketplace rather than by direct government intervention and ownership.

Table 1
New capital investment in Canada, 1961 to the year 2000, in billions of current dollars and as a percentage of gross national expenditures

	1961-70		1971-80		1981-90		1991-2000	
	\$billion	%	\$billion	%	\$billion	%	\$billion	%
Residential construction	27	4.4	102	5.6	266	4.5	597	3.4
Non residential construction	39	6.5	117	6.4	465	7.9	1,702	9.9
Machinery and equipment	43	7.1	135	7.4	542	9.2	1,754	10.2
Increase in inventories	7	1.2	16	0.9	45	0.8	144	0.8
Total business investment	116	19.2	370	20.3	1,318	22.4	4,197	24.3
Government	25	4.2	61	3.4	175	3.0	519	3.0
Total new capital investments	141	23.4	431	23.7	1,493	25.4	4,716	27.3

Source: Informetrica, Ottawa
June, 1981.

Sources of financing

We foresee sources of financing for our capital program between 1981 and 1990 this way: 25 percent personal savings, 65 percent from corporate savings in the form of capital cost allowances and retained earnings, 4 percent from net savings from all levels of government and their agencies and 6 percent from non-residents.

Although corporate savings remain the largest component throughout the period, particular emphasis must be placed in our strategy on the growing role of personal savings and securities markets which channel capital generated by individuals to all parts of Canada and to all enterprises. Corporate savings usually remain within the enterprise which generates them and do not become available to other businesses across the country.

Securities markets in the 1970's financed some 25 percent of our capital needs. In the 1980's they will finance some 35 percent and we expect this trend to continue in the 1990's. It is because more of these needs will have to be financed through personal savings and through securities markets that so many young Canadians are now in the process of preparing for a career in the Canadian investment industry.

Securities markets reviewed

We have been successful in Canada since 1974 in improving the efficiency of the allocation of new capital to productive purposes. New equity financing, that is permanent risk capital and widespread Canadian ownership, amounted to 12 percent of all new financing through our markets for the first six months of 1981. The figure was 3 percent in 1974.

This ratio of new equity for non-financial business to total financing for all business and governments is a key indicator of confidence and the appetite for risk-taking in this country. Our performance in this respect is presently very favourable by international standards. It is essentially a function of fiscal policy, which in Canada since 1974, has attached a high priority to individual saving and investment decision making. It is precisely this kind of portfolio investment which flows through our market system and becomes available to enterprises, small and large, in all parts of Canada, that is integral to our investment program over the next twenty years. (Table 4 reviews new securities issues by Canadian government and business in recent years.)

Conclusion

These thoughts will certainly appear bullish and optimistic in the light of very severe immediate problems, such as inflation, high interest rates, the exchange rate and poor productivity performance. Our securities markets reflect these days widespread concern about these symptoms of economic underperformance.

But, it is important to take a longer view, to assess fundamentals and to try to make some balanced assessment about our prospects. For example, consistent sensible economic man-

Table 2
Industrial profile of new capital investment in plant and equipment, 1981 to the year 2000, in billions of current dollars

	1981-90	1991-2000
Agriculture, forestry, fishing	106	306
Mining	192	853
Manufacturing	205	681
Construction	22	56
Utilities	166	563
Transportation	137	461
Trade	31	99
Finance, insurance, real estate	72	232
Services	77	203
Total	1,008	3,454
Energy-related investments will be a major opportunity		
Energy	339	1,297

Source: Informetrica, Ottawa
June, 1981

Table 3
Regional profile of new capital investment, 1981-90

	Real growth by province 1980-90	Share of total investment 1981-90
	(% change)	
	% 1980-1990	% Share
Newfoundland	72	3.1
Prince Edward Island	31	0.3
Nova Scotia	32	2.3
New Brunswick	35	1.8
Quebec	33	21.0
Ontario	38	23.9
Manitoba	42	3.2
Saskatchewan	46	4.1
Alberta	46	25.0
British Columbia*	51	15.3
Canada	41	100.0

* includes Yukon and Territories

Source: Informetrica, Ottawa
June, 1981

Table 4
New securities issues by Canadian government and business
(\$ millions)

	Government				Corporate						
	Canada	Prov. & Munc.	Total Gov't	% of Total	Debt	Equity	Corp. Total	% of Total	of which True Equity (Non-Fin.)	% of Total	Total
1965	\$ 1,965	\$ 2,005	\$ 3,970	62.6%	\$ 1,825	\$ 550	\$ 2,375	37.4%	\$ 410	6.5%	\$ 6,345
1966	1,890	2,865	4,755	65.7	1,850	630	2,480	34.3	580	8.0	7,235
1967	2,450	3,520	5,970	74.6	1,545	490	2,035	25.4	360	4.5	8,005
1968	2,920	3,160	6,080	71.2	1,865	595	2,460	28.8	565	6.7	8,540
1969	1,805	3,755	5,560	63.8	2,140	1,015	3,155	36.2	820	9.4	8,715
1970	4,170	3,785	7,955	73.3	2,525	380	2,905	26.7	330	3.0	10,860
1971	5,095	4,045	9,140	73.7	2,895	375	3,270	26.3	340	2.7	12,410
1972	2,970	4,665	7,635	69.2	2,680	720	3,400	30.8	550	5.0	11,035
1973	2,060	4,240	6,300	62.5	3,130	655	3,785	37.5	485	4.8	10,085
1974	6,230	5,660	11,890	65.1	5,590	780	6,370	34.9	580	3.2	18,260
1975	5,630	9,685	15,315	73.3	4,315	1,310	5,625	26.7	940	4.5	20,940
1976	6,350	11,465	17,815	69.0	6,600	1,345	7,945	31.0	1,035	4.0	25,760
1977	9,940	10,040	19,980	65.0	7,490	3,245	10,735	35.0	1,275	4.2	30,715
1978	12,820	9,745	22,565	59.4	8,380	7,035	15,415	40.6	1,850	4.9	37,980
1979	10,475	9,145	19,620	61.9	7,835	4,250	12,085	38.1	3,190	10.1	31,705
1980	15,000	11,585	26,585	62.1	10,400	5,790	16,190	37.9	3,990	9.3	42,775

Note: Gross new issues of marketable bonds and stocks — includes CPP. Increase in outstandings for CSBs and short-term paper.

Sources: Bank of Canada Review,
IDA underwriting reports. June 1981.

agement is critical. Such an assessment is, of course, implicit in these forecasts and is reasonable in the light of our traditions and performance over the past two decades when assessed in perspective and by international comparison. Our fiscal system has become, and we expect will remain, internationally competitive. All levels of government in Canada are pledged to restraining expenditures to a rate not higher than the growth of the gross

national product. There is a consensus in Canada that we must maintain a high rate of savings and, increasingly, focus more of these savings on productive new investment in business and social capital. In a large, open, internationally dependent country like Canada, we must expect shocks and frustrations and delays in decision-making from time to time. And, our performance in managing our environment can certainly be improved. But our

assessment at the IDA in Canada in 1981 is, on balance, that for the foreseeable future, there is "Opportunity from East to West".

In the decade of the 1970's, 8 percent of capital formation in Canada or \$35 billion net was financed by non-residents. In the 1980s, this percentage will decline to 6 percent but \$92 billion net of new foreign investment will offer many fine opportunities for foreign investors.



**INVESTMENT
DEALERS
ASSOCIATION
OF CANADA**

The Investment Dealers Association of Canada (IDA) is a national organization representing the securities industry in Canada. Its role is to establish and enforce, through self-regulation, high standards of business conduct and to promote through study, public statements and representations, the raising and effective allocation of capital.

Principal activities of the Association include protection of the investing public; liaison with provincial securities commissions; public policy representations to governments on matters affecting investment; maintenance of high ethical standards; maintenance of orderly marketing and trading; education; provision of statistical data; and liaison with other financial institutions.

The IDA is governed at the national level by a 20-person board of directors, headed by the chairman, vice-chairman and president, and representatives of all parts of the country. Regional activities are conducted by seven district councils: Atlantic, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and Pacific. The chairman of each of the district councils is a member of the national committee which meets with the board of directors twice each year.

There are some 50 committees which carry on the work of the Association nationally and regionally. In addition, the Association participates in a number of joint industry committees, along with the four stock exchanges, to deal with issues of national concern.

New life for Canadian metal mining*

Enormous energy projects and sharp federal-provincial differences over energy policies have tended, quite rightly, to dominate public and business concerns through the past year. One side effect, however, has been an overshadowing of the improvement in activity in the Canadian mining industry, and of a welcome resurgence in mineral exploration and development.

Through much of the 1970s the Canadian mining industry experienced a lengthy pause in development. But today, the pickup in activity ranges from tungsten in New Brunswick, and gold in central Canada, to copper and molybdenum in British Columbia (see map). In this article, we look at the recent performance of the Canadian metal mining industry and assess the prospects for continuing vigour through the next few years. Although the industry picture has included a notable burst of activity in uranium, coal, and potash development, this article will limit its focus to the spectrum of non-ferrous metals that are currently in the forefront of developmental and market interest. In keeping with this approach, too, nickel is touched on only in passing — for while it is still a major factor in the Canadian mining picture, little new development is in early prospect.

The pause in activity

The recent improvement in Canadian metal mining development stands in contrast to the stagnation that occurred through most of the 1970s. To some extent, that weakness was shared by the mining industry in other countries because of an extended period of uneven market recovery and low profitability after the deep world recession of 1974-75. Investment decisions tended to be delayed, too, as potential producers slowly came to terms with the new era of more stringent environmental regulations, escalating capital costs for new mines, and more expensive private sector financing. During this period major new projects were largely centred in the less developed countries where governments took a leading role in resource development.

For Canada, there were a number of special factors which made the pause in activity here an especially protracted one. Easily accessible areas of potential development had become scarcer, and many of the significant new discoveries were located in remote northern areas, where development would require extensive infrastructure. The imposition by a number of provinces of onerous new royalties and mining taxes in 1974-75 (in the wake of the earlier spectacular commodity boom) along with federal-provincial conflicts over resource revenues resulted in high, and in some cases very high, effective tax rates on mining. Although these taxation problems in due course were eased, they created a climate of great uncertainty for some time.

Once the new mines which were under construction at the start of the 1970s came on stream, relatively few new projects were undertaken and indeed almost none in the 1976-78 period. The volume of capital investment in metal mining dropped off sharply, iron ore and uranium providing the only areas of strength. The record of production (and exports) was discouraging as well, though at times some of the weakness in output arose from prolonged labour disputes.

... Followed by a welcome upsurge

In most respects, for Canada, the tide has turned dramatically over the past two years or so. Exploration activity has leapt ahead. All areas of the country have been benefiting, and there has been a particular resurgence in exploratory work on already known gold deposits and prospects. Capital investment in metal mining, too, has been exceptionally strong despite a sharp reduction in spending on iron ore.

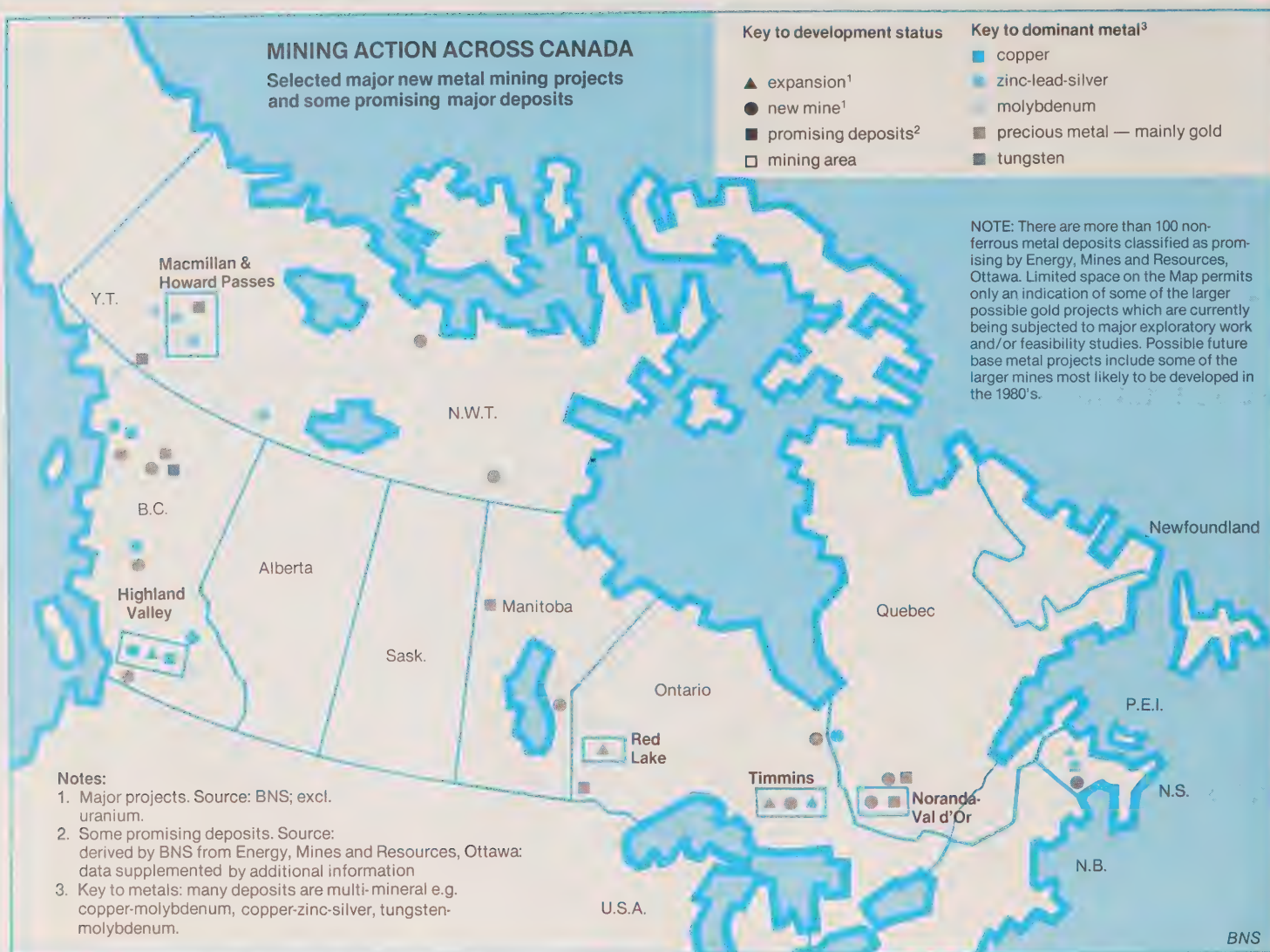
Total investment expenditure on new copper, lead, zinc, and precious metal mines more than tripled in current dollar terms between 1978 and 1980.¹ Although only a modest further increase is expected this year, the total remains at a very high level. The fruits of this investment should start to show up in production figures toward the end of this year.

The most intense development activity has been in British Columbia where projects costing almost \$1 billion are under way or have just recently been completed. As well as the development of new mines, these projects include programs of expansion and mine-life extension, and modernization and expansion of processing facilities. By the end of this year, the volume of potential copper production could be increased by almost one-third as compared with current levels while the increase in molybdenum mine capacity will be even larger. Sharp gains should also be recorded in output of gold and silver (the latter boosted by a large mine near Houston, some 180 miles west of Prince George).

In the Northwest Territories, construction has started at a major zinc-lead mine in the

¹ This does not include spending on nickel-copper deposits which is classified under other deposits.

* This article was first published in the April-May 1981 issue of the Bank of Nova Scotia's Monthly Review.



High Arctic and at an important gold mine some distance to the east of Great Bear Lake. Gold also is the focus of much activity in Ontario and Quebec. Although most of the projects are quite small, plans for a large open-pit operation some 125 miles northeast of Timmins have recently been announced, and in Quebec a sizeable development is under way in the Noranda area. The Atlantic Provinces' metal mining industry will be further diversified when work on a new tungsten-molybdenum mine is completed late this year.

Copper: hopes for better times

Copper markets, often regarded as a bell-wether for industrial metals, have been clearly reflecting world economic difficulties over the past few months. Deepening recession in western Europe, the slowdown in Japan, and the hesitant U.S. recovery have been the main influences depressing copper prices to the 85-90 cent (US) level. Sustained world economic recovery, even on a modest scale, is not expected until toward the end of this year. Despite weak demand and poor prices, few cutbacks in production have been announced, at least in part because byproduct output, particularly of precious metals, has been sustaining revenues from many copper mines. In

consequence, producer stocks are expected to build up quite markedly in the period just ahead. For 1981 as a whole, some recent estimates suggest, the addition in inventories could amount to around 150,000 to 200,000 metric tons. (In contrast, production and consumption were in close balance last year since the market was shielded from much of the effects of the U.S. recession by a protracted strike at U.S. copper producers.) Sizeable as the projected increase is, it remains of manageable proportions in comparison with the huge build-up of inventories after the mid-1970s.

In fact, that earlier heavy overhang of stocks — which reached a peak of over 1.5 million tons early in 1978 — had greatly impeded copper's recovery from the world recession of 1974-75. The price improvement which finally took place in 1979-80 owed much to limitations on production which contributed to a rapid draw-down in these stocks. The amount of new mine capacity coming on stream, in contrast to previous years, was quite small. Output was held back or reduced in such major producing countries as South Africa and Canada. In this country, the nickel-copper orebodies around Sudbury account for an important proportion of copper output, but depressed nickel markets in 1978 and a long

strike at Inco in 1978-79 much reduced Canadian production of copper.

Although economic projections in today's uncertain world are hazardous, most metal analysts expect that demand for copper will grow modestly — in the range of 2.5 percent to 2.8 percent a year on average to 1985. Copper supplies, however, constitute one of the big question marks for the years ahead. The 1980s opened with a significant inventory of very large unexploited deposits, a number of them already subjected to extensive pre-production work. Recently announced new mining projects in North and South America, however, have been of moderate size, and several have included precious metals as well as copper, and others have represented expansion of existing mines.

Although many very large known deposits, in Chile and Peru for example, are being re-examined, uncertainty as to whether prices will reach levels sufficient to justify heavy construction and financing costs could effectively delay (and in some cases is already delaying) production decisions. And the lead time for a production start in such instances is considerable. New or increasingly important elements which could assist in the development of large new mines are joint-venture enterprises, participation or ownership by

cash-rich oil companies, and more pragmatic attitudes of host governments in developing countries.

Most estimates point to an improved supply-demand balance over the next five years, the modest growth in consumption to be met by an equally modest growth in mine capacity. By implication then, real prices could stabilize at more profitable levels for existing mines. This would be in contrast to the downward trend experienced through most of the 1970s.

In Canada, several new mining projects are under way or have recently come into operation. In addition, in northern Ontario, a new copper smelter and refinery is close to completion and work is already going ahead for expansion of these facilities. For the future, Canada has a number of attractive undeveloped copper deposits and the step-up in exploration will undoubtedly lead to new discoveries. One really major new development in the Highland Valley area of B.C. could come into production toward the mid-1980s.

Zinc: concentrates in demand

For zinc, the recovery in demand has been weak, and even through 1979 and 1980 prices rose only marginally above their level of late 1978. The automobile industry represents a major market — both for die castings and for coatings to protect steel against corrosion. Automotive demand for zinc die castings has declined sharply over the last few years in the large U.S. market as car manufacturers have substituted such lighter materials as plastic and aluminum in their efforts to produce vehicles with greater fuel efficiency. And, though the use for corrosion protection is certainly a growing market for zinc in many different industries, the weakness in sales of North American-built motor vehicles has held down consumption on this continent.

Despite weak demand overseas as well as in the United States, producer stocks have remained at relatively low levels. The flow of metal supplies has been limited by production cutbacks, particularly at overseas smelters and by the shutdown of some U.S. refining capacity due in part to the difficulty of meeting environmental regulations. But for some time, too, zinc mine output (in the form of concentrates) has failed to keep pace with even the reduced smelter demand, giving rise to considerable strength in the markets for zinc concentrates. With little new mine output scheduled to come on stream this year, the relatively tight supply position for concentrates is expected to continue. This situation may reflect more of a structural problem than a cyclical one. If so, rationalization of the industry to eliminate some of the surplus high-cost smelter capacity in Western Europe and Japan might end the anomaly of low prices for the refined metal occurring at the same time that supplies of the raw material are tight.

Canada is by far the world's leading exporter of refined zinc and of concentrates and is likely to remain so in the foreseeable future. Most zinc mines and processing plants in this

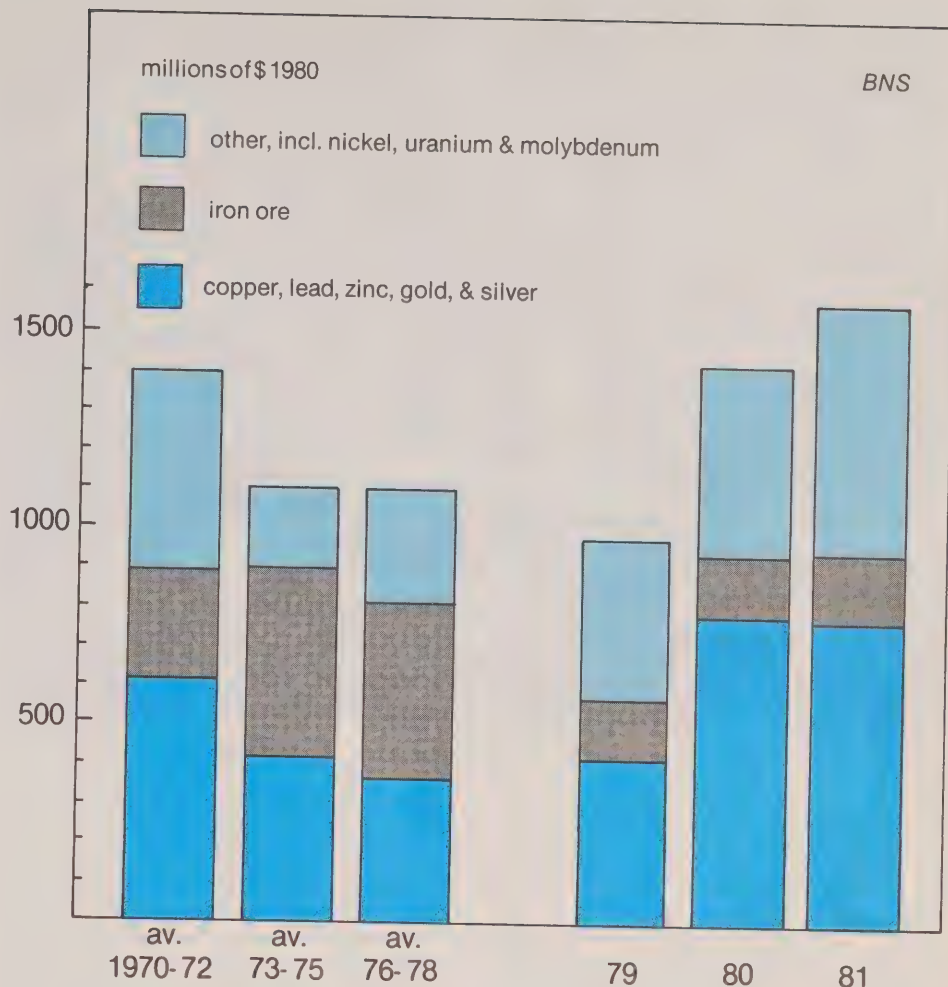
country are large and employ up-to-date, efficient technology. They enjoy relatively low energy costs as compared with those in, say, Japan. In addition to smaller ongoing programs in Canada, there is a major modernization and expansion program at the zinc-lead processing facilities at Trail, in British Columbia, and a large new zinc-lead mine in the High Arctic is scheduled to start production in 1982. And known but as yet undeveloped ore deposits in this country are large (as indicated in the map).

Lead: fluctuating prices

The recent pronounced swings in lead prices have been quite uncharacteristic of this normally rather stable metal. Prices rose steeply in 1979 to abnormal heights, mainly because of large Eastern European purchases at a time when world supply and demand were in close balance and producer stocks were low. A fall-off in these purchases, combined with a lowering of replacement-battery demand (in part because of the relatively mild 1979-80 winter in the United States and Europe), brought a sharp weakening in

demand and prices during 1980. This was exacerbated by the drop in U.S. auto sales (and thus requirements for new batteries) along with the mandated U.S. phasedown of the use of lead in anti-knock additives for gasoline.

Little improvement in lead demand is foreseen for this year, particularly in view of the further drop expected in U.S. consumption of leaded gasoline. Prices have been recovering from the low point reached in February, however, in part because of a strike at a U.S. producer. As with zinc, lead mine output has been static for some years, and little new capacity is coming into operation this year. Concern over lead pollution in the workplace and elsewhere has led to proposed new stringent regulations in the United States. In all industrialized countries, indeed, standards for lead emissions are under review. Such uncertainty has held back the construction of new production facilities and, in some cases, could result in plant closures. For Canada, with large potential ore reserves, this situation could present good opportunities, providing clearly defined and consistent pollution control standards are developed by the various regulatory authorities.



DATA: Basic source — *Public and Private Investment in Canada*; 1981 data — intentions, BNS ests. for iron ore, 1970, 1971, and 1977, current dollar figures converted to constant 1980 dollars by GNP non-residential construction price index, 1981 index — BNS est.



The Lake Dufault Mines Ltd. copper mine north of Noranda, Québec also yields zinc, silver and gold.

Molybdenum: into world surplus

Molybdenum — a relative newcomer in the metal world — is used chiefly as an additive in alloy and stainless steels. Growth in demand has been very rapid in recent years, averaging some 6 percent to 7 percent a year. Between 1973 and 1979, in fact, tight (and at times short) supplies and sharply rising prices were the rule.

By last year, however, the market began to weaken as world industrial activity declined, and molybdenum supplies became more adequate following the settlement in late 1979 of a prolonged strike at a major Canadian producer. Dealer prices² have fallen sharply from their strike-inflated levels, and producer prices have been trending somewhat lower (though they are still double their 1977 average). There have been no announcements as yet of production cutbacks, although at least some producers are building up stocks.

The attractive market situation prevailing until quite recent months has led to a rush of new molybdenum projects. In Canada (the second largest producer next to the United States), productive capacity could increase by almost 50 percent by 1983 when new projects, mostly in British Columbia, are scheduled to be fully in operation. At the same time, U.S. output is scheduled to move up sharply. In total, announced capacity increases over the next five years, if all come into operation as planned, are likely to exceed by a considerable margin the somewhat lower

consumption growth rate which is anticipated (on the order of 5 percent a year).

Though outlets in the transportation and energy-related fields continue to be promising, high prices and shortages have encouraged a good deal of substitution and economy in use and, in general, markets for molybdenum are maturing. The dominance of one major U.S. producer may serve to cushion the pressures of indicated surplus capacity. But, as was the case for nickel several years ago, much will depend upon the course of action adopted by new producers intent on establishing a market share.

Precious metals: dazzling price levels

Despite continuing great volatility, prices of precious metals have risen in the last few years to unprecedented and largely unforeseen heights. Current prices of around US \$500 an ounce for gold and US \$11 an ounce for silver compare with about \$240 and \$7 only two years ago, although they are down sharply from the peaks reached in early 1980. Precious metals (as well as other metals at times) have been the target of both investment and speculative demand. The huge price increases are symptomatic of today's difficult world environment, marked as it is by grave political uncertainties, escalating energy costs, serious inflationary trends, and a widespread distrust of paper currencies.

In Canada, until recently, interest in gold and silver mining exploration and development lagged considerably behind the big rise in prices. In large part, this hesitance was due to a lack of confidence that higher price levels would persist. But over the past year there has been an enormous outburst of activity, coin-

cident with the ready financing provided by a strong market for mining stocks.

About one-third of Canada's gold production is derived as a byproduct of non-ferrous metal mining; revenues from this gold (and also silver) have provided an important contribution to earnings. For the pure precious-metal mines, the major turnaround in profitability after so many dismal years is particularly welcome.

Capital expenditures on gold exploration and mine development doubled in 1980 and are expected to show a similar increase this year. Including only projects costing \$25 million or more, plans have been announced for four new operations to start between 1981 and 1983. And there are a score or more of smaller mines now under construction or in the planning stage. To some extent this projected new output will be offset by the exhaustion of other orebodies and by the tendency of existing mines to mine lower-grade ore now economic at higher prices. Nevertheless, the declining trend in Canadian gold output should be halted and production should actually increase, though slowly.

The recent dips in gold prices to around US \$500 an ounce or even a bit lower have calmed some of the excessive fervour in the gold mining scene in Canada. A number of the projects under study are really quite small and often low grade; their development will be sensitive to the outlook for a continuation of high gold prices.

Opportunities for Canada

A number of promising ore deposits are already well delineated and "on the shelf" in Canada, and further new discoveries are a reasonable expectation. Accordingly, the outlook for new mine development here is quite bright, if only because of the slow pace of mine development around the world over the past few years. Construction of new metal processing facilities is also likely; plans for a zinc refinery in New Brunswick are currently under consideration.

The actual rate of new development could, of course, be affected by any new uncertainties about resource investment generally as a result of federal-provincial conflicts over energy resources and pricing. For some of the more remote potential mining areas, government cooperation in the establishment of infrastructure will be required. The labour situation has frequently been a problem as evidenced by the need both for skilled personnel and for a lessening of the high turnover rate in many northern areas, as well as by the adversary atmosphere which too frequently has led to crippling strikes. And environmental concerns will have to be accommodated.

There are challenges ahead but with a favourable energy potential relative to many other areas, plus proximity to the huge U.S. market and well-established ties with Japanese and Western European customers, Canada appears quite well positioned to take advantage of the new opportunities arising in the changing world mining scene.

² Dealer prices for metals are apt to fluctuate more widely than the prices established by producers. For most metals, the amount marketed by dealers is generally small.

Capital investment projects in Canada

Electric power, oil and gas, and mining

Some analysts assert that over the next 20 years well over \$1 trillion worth of capital investment will be made in Canada. Resource industries will account for a considerable portion of that investment as pipelines are built, energy resources developed, mineral exploration and production increased and related infrastructure expenditures made.

This list shows major capital spending projects now in progress or firmly committed in the electric power, oil and gas, and mining sectors. Only projects costing over \$10 million are included. Other sectors will be covered in subsequent issues of the Foreign Investment Review. Information has been obtained from press reports. This report was prepared by the staff of the Foreign Investment Review Agency with the assistance of the Economics Department of the Bank of Nova Scotia.

Company and project description		Completion date	Cost (\$ million)	Location
British Columbia				
Electric power				
B.C. Hydro and Power Authority	New power plants	1987	1,900	Peace River, Site C
	hydro	1985	1,700	Revelstoke
	transmission line	1983-84	800	mainland to Vancouver Island
Oil and gas				
B.C. Hydro and Power Authority	Gas transmission line	1984	125	Tilsbury to south of Nanaimo
Chevron Canada Inc.	Refinery expansion	1982	13	Burnaby
Shell Canada Ltd.	Refinery expansion	1983	52	Burnaby
Mining				
B.C. Coal Ltd.	Coal mine	1983	282	Sparwood
Bethlehem Copper Corp. and Valley Copper Mines Ltd.	Copper, molybdenum and silver mine	1984	750	Highland Valley area
Cominco Ltd.	Expansion and modernization of zinc refinery	1983	210	Trail
	New zinc leaching plant and lead smelter	1985	n.a.	Trail
	Modernization of Sullivan lead-zinc mine	1982	20	Kimberley
Denison Mines and Teck Corp.	Coal mine	n.a.	900	Tumbler Ridge
Fording Coal Ltd.	Expansion, coal mine	1982	115	Elkford
Noranda Mines Ltd.	Development of copper-zinc mine	1982	62	Goldstream Valley
	Expansion of molybdenum milling capacity	1982	13	north of Kamloops
Quintette Coal Ltd.	Coal mine	1985	700	Peace River area
Shell Canada Resources Ltd.	Coal mine	1982	200	Sparwood area
Teck Corp.	Coal mine	1983	220	Peace River area
Westmin Resources Ltd. (formerly Western Mines Ltd.)	Copper-lead-zinc mine	1982	19	Buttle Lake

Alberta

Electric power

New power plants					
Alberta Power Ltd. and					
Transalta Utilities Corp.					
(formerly Calgary Power Ltd.)		thermal	1985-86	750	near Hanna
Edmonton Power	thermal	1987-88	760	Genesee	
Transalta Utilities Corp.	thermal	1984	1,200	Keephills	
	thermal	1985-86	750	Keephills	
	transmission				
	system	1983	n.a.	Keephills to Edmonton	
	interconnection				
	with B.C. Hydro	1983	n.a.	Crowsnest Pass area	

Oil and gas

Alberta Energy Co. Ltd. Twin pipeline system	1982	65	Cold Lake to Edmonton
Canada Development Corporation Pilot steam injection plant	1982	30	Kearl Lake
Chieftain Development Co. Ltd. Gas processing plant	1982	20	Sinclair gas field
Foothills Pipe Lines Ltd. Prebuild section of Alaska Highway Pipeline	n.a.	600	James River Junction to Monchy (Sask.)
Gulf Canada Ltd. Refinery expansion	n.a.	200	Edmonton
Gulf Canada Resources Inc. Gas processing plant	1982	250	near Edson
Husky Oil Ltd. Expansion, heavy oil refinery	1982	80	Lloydminster
Husky Oil Operations Ltd. Twin pipeline system	1982	55	Cold Lake to Lloydminster
Imperial Oil Ltd. Expansion, oil refinery	1986	290	Edmonton
Shell Canada Ltd. and Husky Oil Ltd. Synthetic heavy oil refinery	1984	520	near Fort Saskatchewan
Suncor Inc. Expansion, heavy oil plant	1982	185	Fort McMurray
Texaco Canada Resources Ltd. Expansion, gas processing plant	1982	40	Bonnie Glen area

Mining

Gregg River Resources Ltd. Coal mine	1983	180	Hinton area
Union Oil Co. of Canada Ltd. Coal mine	1983	240	Hinton area

Saskatchewan

Electric power

New power plants			
Saskatchewan Power Corporation thermal	1982	170	Coronach area
hydro	1985-86	505	Nipawin

Mining

Cominco Ltd. Expansion, potash operations	1982	30	Saskatoon area
Key Lake Mining Corp. Uranium mine-mill complex	1983	400	Key Lake
Potash Co. of America Expansion, potash mine	1982	30	Saskatoon area
Potash Corp. of Saskatchewan Ltd. Expansion, potash mine	1983	430	Lanigan

Manitoba

Electric power

New power plants			
Manitoba Hydro	1989	n.a.	Limestone, Nelson River

Mining

Brinco Ltd. and New Forty-Four Mines Ltd. Reactivation of gold mine	1981	15	Bissett
Hudson Bay Mining and Smelting Co. Ltd. Zinc mine	1982	16	Flin Flon area
Zinc refinery improvements	1982	20	Flin Flon area
Copper-zinc mines	1982	15	near Snow Lake
Manitoba Potash Co. Potash mine and processing plant (planned)	1987	600	McAuley

Ontario**Electric power**

New power plants				
Great Lakes Power Co. Ltd.	hydro	1982	110	Sault Ste. Marie
Ontario Hydro	thermal	1984-88	938	Atikokan
	nuclear	1988-90	6,700	Darlington
	nuclear	1983-87	4,550	Bruce
	nuclear	1983	3,100	Pickering

Mining

Amoco Canada Petroleum Co. Ltd., Dome Mines Ltd. and Campbell Red Lake Mines Ltd. Gold mine	1983	143	Detour Lake
Denison Mines Ltd. Expansion, uranium mines	1985	250	Elliot Lake
Dickenson Mines Ltd. Expansion, gold mine	1982	15	Red Lake area
Dome Mines Ltd. Expansion and improvement of gold mine	1984	92	Timmins
Domtar Inc. Expansion, rock salt mine	1983	37	Goderich
Inco Ltd. Electro-cobalt plant	1982	21	Port Colborne
Ventilation system, Creighton mine	1982	72	near Sudbury
Mattabi Mines Ltd. Expansion, zinc-copper mine	1984	27	Sturgeon Lake
Pamour Porcupine Mines Ltd. Reactivate gold mine	1982	15	Timmins area
Preston Mines Ltd. Reactivate uranium mine	1984	186	Elliot Lake
Rio Algom Ltd. Uranium mine and mill complex	1983	188	Elliot Lake
Texasgulf Inc. Expansion, zinc plant	1982	10	Timmins

Québec**Electric power**

New power plants				
Hydro-Québec	hydro	1985	600	north of Baie Comeau
	nuclear	1982	1,000	Gentilly
Société d'énergie de la Baie James	hydro	1985	15,000	James Bay area

Oil and gas

Gaz Inter-Cité Québec Inc. Gas distribution system	1991	500	Trois-Rivières, Quebec City and other points
Gaz Métropolitain Extension, gas distribution system	n.a.	65	Montreal and east of Montreal

Golden Eagle Canada Ltd. Refinery improvements		1982	300	St-Romuald
Trans Canada Pipelines Ltd. and Q & M Pipeline Ltd. Pipeline		1982	500	Montreal to Quebec City
Mining				
Bachelor Lake Gold Mines Ltd. Gold mine		1981-82	10	Bachelor Lake
Les Mines Seleine Inc. Salt mine		1982	65	Iles de la Madeleine
Noranda Mines Ltd. Improvements, copper smelter		1983	35	Noranda
Improvements, zinc reduction plant		1983	45	Valleyfield
QIT-Fer et Titane Inc. Productivity improvements and pollution control		1985	100	Sorel
Teck Corp. Ltd. and Niobec Inc. Expansion, columbium mine		1981	10	St-Honoré

Atlantic Region

Electric power

New power plants				
Lower Churchill Development Corp.	hydro	n.a.	3,200	Muskrat Falls, Nfld.
New Brunswick Electric Power Commission	nuclear	1982	1,200	Point Lepreau, N.B.
Newfoundland and Labrador Hydro Commission	hydro	1982	155	Upper Salmon River, Nfld.
	hydro-electric plant	1984	287	near Devil Cove, Nfld.
Nova Scotia Power Corporation	thermal	1984	161	Lingan, N.S.

Mining

Cape Breton Development Corp. Coal mine		1983	300-400	Cape Breton Island, N.S.
Coal mine		1984	54	Point Aconi, N.S.
Denison-potocan Potash Co. Potash mine		1983	190	Sussex, N.B.
Mount Pleasant Joint Venture Tungsten-molybdenum mine		1982	80	near Fredericton, N.B.
Potash Co. of America Potash mine		1983	150	Sussex, N.B.

Yukon and Northwest Territories

Electric power

New power plant				
Northern Canada Power Commission	hydro	1983	26	Whitehorse, Yukon

Mining

Cominco Ltd. Lead-zinc mine		1982	130-140	Little Cornwallis Island, N.W.T.
Echo Bay Mines Ltd. Gold mine		1982	108	Contwoyto Lake area, N.W.T.

Provincial Incentives

In an effort to attract new investment and industry, Canada's provincial governments have developed a range of programs designed to provide professional, technical and financial services to both foreign and Canadian firms. These incentive programs vary from province to province according to their economic vocation, industrial structure and priorities. In addition to providing technical assistance, such as the information and advisory services offered usually by their departments of industry and commerce, several provinces have created economic development corporations which offer financial assistance in the form of subsidies, loan guarantees and participation in share capital. Other provincial corporations work with industry to take advantage of certain market opportunities. All these provincial incentives should be viewed together with the federal government's programs and services. The latter were described in the last issue of the Review (volume 4, number 2).

Newfoundland

"Energy" could become a key word in Newfoundland's future economic vocabulary. The province has already harnessed enormous reserves of hydro-electric power. In addition, several years of intensive offshore oil exploration have produced some very promising results. Currently, however, the cornerstones of the province's economy are fishing, pulp and paper and mining, particularly iron ore. Uranium and gold have also been found. Newfoundland has a limited manufacturing sector in electronics and food and beverages. The province's scenic beauty and unique folklore have made it the site for the development of a significant tourist industry.

Newfoundland and Labrador Development Corporation Limited

The Corporation assists small- and medium-sized business enterprises in the primary and manufacturing sectors to carry out capital projects not exceeding \$2.5 million by lending up to 80 percent of the total capital costs for up to 15 years at the prevailing interest rate. The Corporation can provide up to 49 percent of equity requirements with holdings to be in the form of preference shares.

To encourage the secondary and final processing of fish and fish products, the Corporation provides loans, interest free for the first two years if principal repayment is within program guidelines, for the purchase of suitable machinery and equipment approved by the Corporation. **Contact:** Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.

Department of Development

The Department has a market and product development program for assisting Newfoundland companies which plan to market goods or services outside the Province or within the Province in order to substitute for goods and services being imported. Financial assistance is in the form of a non-repayable grant up to 50 percent of the project's total cost to a maximum of \$50,000. **Contact:** Department of Development, P.O. Box 4750, St. John's, Newfoundland, Canada A1C 5T7.

Department of Rural Development

The Department offers rural development authority loans to encourage the development of small resource-based industries. It provides low interest loans of up to \$25,000 for the purchase of land or buildings, the construction or renovation of buildings, the purchase of machinery and equipment, and for working capital for start-up or expansion.

The Department also offers development grants as follows:

- (1) 50 percent of the capital cost up to \$25,000 for the establishment, expansion or modernization of manufacturing or processing facilities. Maximum grant \$12,500.
- (2) 50 percent of the capital cost up to \$60,000 for the establishment of industries utilizing primary resources. Maximum grant \$30,000.
- (3) 50 percent of the capital cost up to \$30,000 for the expansion or modernization of industries utilizing primary resources. Maximum grant \$15,000.

- (4) 75 percent of the approved cost up to \$10,000 for the research and development of new industry ideas. Maximum grant \$7,500.

Contact: Department of Rural Development, P.O. Box 4750, St. John's, Newfoundland, Canada A1C 5T7.

Prince Edward Island

Prince Edward Island is Canada's smallest province. Traditionally, agriculture and fishing have been its economic cornerstones. The Island's charming scenery has made tourism one of the province's principal industries. In recent years, however, the province has enjoyed considerable industrial growth, notably in specialized manufacturing and food processing. This has added greater balance to the province's economy. Prince Edward Island has two significant industrial programs for the development of light industry.

Industrial Assistance Program

Administered by the Department of Tourism, Industry and Energy, the program provides financial assistance in the form of interest-free forgivable performance loans (FPL) to manufacturing and processing businesses, as well as to selected service industries, for modernizing or expanding operations or for creating new ones. Eligible manufacturing and processing businesses may receive a maximum FPL of up to \$30,000 for any one project. In addition, the program provides assistance for the purchase of new, used or reconditioned equipment and machinery. It also assists in the financing of construction or renovation of production facilities. Financing for the program is on a joint federal-provincial basis. **Contact:** Department of Tourism, Industry and Energy, P.O. Box 2000, Charlottetown, Prince Edward Island, Canada C1A 7N8.

Three-Phase Power Transmission Program

The Three-Phase Power Transmission Program is designed to provide adequate energy supplies to those manufacturing and processing plants that are restricted in capacity and production because the present power supply is insufficient. This program provides funds to convert single-phase power transmission to three-phase power, and/or to purchase and install equivalent power generating equipment. **Contact:** Department of Tourism, Industry and Energy, P.O. Box 2000, Charlottetown, Prince Edward Island, Canada C1A 7N8.

Nova Scotia

A peninsula situated on the Atlantic coast, Nova Scotia has developed an international reputation for its oceanographic and aquacultural research. Fishing is naturally one of the province's most important industries. Nova Scotia has a long mining history with its significant deposits of coal, lead and zinc. In addition, the province has been the setting for considerable offshore oil and gas exploration. Manufacturing in Nova Scotia is based principally on resource processing, although companies such as Crossley-Karastan, Volvo and Michelin have an increasing input to the economy of the province. There is also a growing number of high-technology industries related to ocean industry, an area which is receiving keen attention from business and government as the province trains its attention to profiting from the 200-mile economic zone. The province also has a vigorous tourist industry. Nova Scotia is and has always been an active trading province, as is shown by the tonnage which passes through the Port of Halifax, the capital city. Halifax is the closest ice-free mainland North American port to Europe.

Industrial Estates Ltd.

Industrial Estates Ltd. is a Crown corporation for the development of industry in Nova Scotia. It provides long-term loans on 20-year first mortgages up to 100 percent of the cost of land and buildings of secondary manufacturers and up to 60 percent financing of installed cost of machinery with 10 years to repay. **Contact:** Industrial Estates Ltd., P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.

Nova Scotia Department of Development

The Nova Scotia Department of Development is responsible for the development of businesses and industry. It offers loans to tourist industries and processing plants in agriculture, forestry and fisheries, through the Nova Scotia Resources Development Board. The department also has specific assistance programs in marketing, management development, product design and development and professional consulting. A rural industry program offers capital grants to businesses wishing to expand, establish or modernize outside the Halifax-Dartmouth area. Other programs are offered by the departments of agriculture, lands and forests, tourism, labour, fisheries and education which may be relevant to businesses and industries. **Contact:** Nova Scotia Department of Development, P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.

New Brunswick

New Brunswick offers some very real geographic advantages to investors; on one side of the province is its common border with the United States and on the other, its seaports provide easy access to both North American and European markets. As a result, New Brunswick is an important trade area on the Atlantic coast. Agriculture, forestry and mining are all important economic activities in the province. In recent years, manufacturing has grown significantly, particularly pulp and paper, food processing and non-ferrous metals.

Department of Commerce and Development

The Department offers firms established in New Brunswick an extensive support program in the areas of management, marketing, production and distribution. The Department also seeks out and processes new industrial projects, and evaluates applications for financial assistance submitted to the New Brunswick Industrial Development Board by entrepreneurs wishing to establish businesses in New Brunswick. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1.

New Brunswick Industrial Development Board

The Board offers financial assistance to firms in the form of direct loans, bonds or loan guarantees, or the acquisition of shares. The Board also administers a joint federal-provincial grant and loans program for small businesses. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1.

Provincial Holdings Ltd.

This Crown corporation has holdings in the share capital of manufacturing companies located in New Brunswick. The agency can hold equity in manufacturing and processing industries that wish to become established in New Brunswick. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1.

Quebec

Quebec has a wealth of natural resources on which it can base further economic expansion. The province has a relatively strong industrial base, particularly in aeronautics, shipbuilding and public transport equipment. It has strong growth prospects in the machinery and electrical products industries. Quebec's tremendous reserves of hydro-electric power, available at a very competitive price, make the province an attractive location for the development of highly productive manufacturing industries, particularly in the electro-metallurgical and electrochemical sectors. Also worth mentioning are Quebec's relative strength and technological competence in transport equipment, communications instruments, electrical equipment and pharmaceuticals.

Quebec Industrial Development Corporation (QIDC)

The QIDC is the Government of Quebec's principal tool for providing financial assistance to manufacturing firms established in Quebec. This assistance is offered in different forms according to the nature and needs of the recipient firm: loans at prevailing market interest rates; partial reimbursement of debt costs; partial reimbursement of loans when certain criteria are met; and participation in share capital. **Contact:** Quebec Industrial Development Corporation, 1126 Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.

Department of Industry, Commerce and Tourism

The Department provides technical services to firms in marketing, financing, management, manpower and production, the negotiation of licensing agreements, market studies and statistics. It has permanent delegations or economic counsellors in Atlanta, Boston, Brussels, Chicago, Dallas, Dusseldorf, London, Los Angeles, Milan, New York, Paris, Tokyo and Toronto. **Contact:** Quebec Department of Industry, Commerce and Tourism, Industrial Promotion Branch, 1 Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.

Quebec enterprise development corporations (SODEQ)

These are private corporations that invest in small- and medium-sized Quebec manufacturing firms to which they offer management assistance.

Contact: Department of Industry, Commerce and Tourism, Enterprise Services Branch, 710 Place d'Youville, 8th Floor, Quebec, Quebec, Canada G1R 4Y4.

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned companies are involved in financial participation in joint ventures with Canadian or foreign private sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** Quebec Ministry of Industry, Commerce and Tourism, Industrial Promotion Branch, 1 Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.

Processing firms can also receive exemptions from the provincial sales tax on certain products, tax rebates on fuel purchases and on industrial machinery used for processing in Quebec.

Ontario

Ontario is one of Canada's most important centres of economic activity. Of all the provinces, it has the largest number of manufacturing firms and is the home of numerous head offices. Its capital, Toronto, is the financial heart of this country and the service industry is highly concentrated there. Its most important industries are automobile manufacturing, steel, tourism, mining and pulp and paper. The Government of Ontario offers various programs which provide financial incentives and advisory services to stimulate the economy and create jobs.

Development Corporations

Ontario has three development corporations: the Ontario Development Corporation, the Eastern Ontario Development Corporation and the Northern Ontario Development Corporation.

They offer a comprehensive program of financial and advisory services to business and industry throughout Ontario. Secondary manufacturing industries, service industries closely allied to manufacturing, tourist operations and tourist attractions are all eligible for development corporation assistance.

The type of financial assistance provided will be tailored to the needs of the applicant and may be provided through any one or combination of the following methods: corporation consultants may help the client in approaching private lenders or other sources

of government funding; guarantees can be provided to encourage private lender participation; direct loans from the development corporations involving a variety of terms and conditions of repayment can be adapted to meet the specific needs of the small business person; and special incentives can be offered if it can be shown that the project would not succeed unless an incentive were available.

Contact: Ontario Development Corporation, 1200 Bay Street, 6th floor, Queen's Park, Toronto, Ontario, Canada M7A 2E7.

Small Business Development Corporations Program

Incentives in the form of a share credit program are provided to encourage equity investment in Ontario-based small business ventures. The incentives are available only on new issues of SBDC shares.

Subject to certain conditions, investors may establish their own small business development corporation through a straightforward registration procedure. In 1980-81, the minimum capital requirement for an SBDC is \$100,000. Businesses involved in mining, oil and gas exploration, development and production do not qualify as eligible investments, but will be handled in separate incentive programs.

For individuals, upon receipt of their share certificates from the SBDC, they may apply to the Ontario Ministry of Revenue for their share credit. A special statement concerning the share purchase will be provided by the SBDC to the Ministry of Revenue for this purpose. For corporations, the statement will be submitted to the Ministry of Revenue and, when approved, installment payments not fully applied in the year of investment may be carried forward indefinitely. **Contact:** Ministry of Revenue, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 2B3.

Ministry of Industry and Tourism

Ontario's Ministry of Industry and Tourism offers industry services to manufacturing companies and service industries to expand in the province, to find new business opportunities, to seek out and apply new technologies, to establish new production facilities and to market their products domestically and internationally. It also makes available an array of trade services to identify and develop export markets, to assist selected industries to increase export market penetration, to identify and develop import replacement opportunities and to help target industries increase their share of the domestic market. **Contact:** Ontario Ministry of Industry and Tourism, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 2E1.

Manitoba

Gateway to Canada's West, Manitoba has an economy based primarily on agriculture and mining. In recent years, however, the province has seen its economic base expand and diversify as a result of a growing manufacturing industry which is less closely tied to natural resources.

Department of Economic Development and Tourism

For the next two years, the major thrust of the Department's programs for business will be the \$44-million federal-provincial Industrial Development Agreement known as Enterprise Manitoba, whose purpose is to stimulate growth in the manufacturing sector by focusing on six specific industries: aerospace, electronics, food and beverages, health care products, light machinery and transportation. In addition to the direct funding assistance provided to business by Enterprise Manitoba, the Department provides strong service support through its pool of experienced industrial consultants.

The Department offers a variety of programs to business. The Rural Small Enterprise Incentives Program provides interest-free forgivable loans to manufacturing, processing or related maintenance or repair businesses: for new firms, the loans are on the basis of 50 percent of eligible capital costs up to \$30,000; for existing businesses, they are on the basis of 30 percent of eligible capital costs up to \$18,000. To be eligible, businesses must have yearly sales not exceeding \$500,000 and be located outside Winnipeg and adjacent municipalities.

Advance factory space can be provided in one of the two Enterprise Development Centres located in Brandon and Winnipeg to businesses that are new or that are introducing a new product or are embarked on a marked departure from previous operations. Self-contained modules of factory space, ranging in size from 1,350 m² to 3,600 m², will be offered to businesses on a cost-shared basis. Also offered through the Enterprise Development Centres, specifically for small manufacturing firms, are technical and business consulting services for the purpose of improving products, sales and profitability, upgrading management skills, and starting or expanding businesses. Expertise will be available generally through staff resources at the Centres, but provision has been made for cost-sharing of up to 50 percent of the cost of hiring private consultants when highly specialized expertise is required.

The Department also has a Human Resources Management program which offers

educational programs and courses to Manitoba businesses to assist them in upgrading their management skills, specifically as they relate to human resources. **Contact:** Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8.

Market Development Group

The Market Development Group provides marketing and export services designed to assist the increase of sales of Manitoba-made merchandise and services outside Manitoba. A cost-shared promotion assistance program for participation in trade fairs and missions is available. **Contact:** Market Development, Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8.

Travel Manitoba

Operators of packaged tours within or bringing visitors to Manitoba are assisted with grants for the initial development and marketing of new tour products. Grant assistance to a maximum of \$15,000 or 50 percent of approved costs in the first year and \$3,000 or 25 percent of approved costs in the second year of a new product may be obtained.

Consultative, research and advisory services to prospective investors in the tourism industry in Manitoba are also provided.

Contact: Destination Manitoba, Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8.

Manitoba Design Institute

The Institute provides design consulting and advisory assistance to manufacturers for design research and product innovation. Cost shared funding for design projects — packaging design, brochure design, corporate identity, and product design improvement. **Contact:** Manitoba Design Institute, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8.

Manitoba Research Council

The Council provides technical assistance by industrially experienced scientists and engineers in the general area of product and processes development, raw material selection and testing, product testing, quality control, product costing and so on. **Contact:** Manitoba Research Council, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8.

Saskatchewan

Saskatchewan is Canada's most important agricultural province and given the importance of this industry to the province's economy, it is not surprising that a number of important agricultural equipment manufacturers have established themselves there. In addition, Saskatchewan has a growing resource sector, particularly in potash, uranium and petroleum. The province is also the home of the Canadian West's largest steel industry and its production of pipe and steel products has been increasing steadily. Saskatchewan has a special interest in industries related to machinery and equipment, food processing, electronics, plastics, pharmaceuticals and industries supplying the resource sector.

Department of Industry and Commerce

The Department offers a variety of development programs to assist businesses in the province. These include: The Aid to Trade Program for manufacturers wishing to extend their market areas through promotion; the Product Development Program which provides assistance for developing and testing of new products; and the Management Development Program which is aimed at helping firms improve performance through counselling, technical assistance, courses and seminars. For the most part, these programs provide assistance up to 50 percent of approved costs.

The Small Industry Development Program provides forgivable loans to manufacturers planning to expand, modernize or establish new facilities in Saskatchewan. The amount of assistance depends upon the size of the project and its location. Abatement grants are available under the Small Business Interest Abatement Program to businesses borrowing to start new operations or expand and upgrade existing ones. **Contact:** Saskatchewan Department of Industry and Commerce, SPC Building, 7th Floor, 2025 Victoria Avenue, Regina, Saskatchewan, Canada S4P 3V7.

Saskatchewan Economic Development Corporation (SEDCO)

SEDCO's primary objective is to foster economic growth within the province. This role is facilitated through diversified financial, industrial and property services to virtually all sectors of the provincial economy. SEDCO provides project financing to Saskatchewan businesses in the form of term financing, guarantees, equity participation and a variety

of special programs as the need arises. In addition, SEDCO organizes industrial sites for lease or sale and provides property-related services to businesses in the province. SEDCO is also the developer and manager of *INNOVATION PLACE*, a major research park situated adjacent to the University of Saskatchewan at Saskatoon. **Contact:** Saskatchewan Economic Development Corporation, 1106 Winnipeg Street, P.O. Box 5024, Regina, Saskatchewan, Canada S4P 3M3.

Alberta

With its abundant petroleum, natural gas and coal resources, Alberta is Canada's most important energy-producing province. In addition to intense exploration and development activities in Alberta's conventional and non-conventional energy resources, the manufacturing and service sectors have grown extensively. Alberta is also an important agricultural producer, particularly in grains and livestock. The volume of government revenues from petroleum production royalties and exploration and development permits has made it possible for Alberta to have the lowest personal and corporate income tax rates in Canada.

Department of Economic Development

The Department offers a variety of services relevant to industry. Its Strategic Planning Services are responsible for coordinating economic activity related to a number of government departments. Its Industry Development Branch has as its goal to improve the performance of Alberta's manufacturing and processing industries by means of sector development programs, business expansion assistance and new-business establishment programs. The Department offers marketing services, seeking to match product and manufacturing capacities with domestic and foreign market opportunities as well as assisting business on marketing problems. The Department also offers trade-development services by assisting the industrial and consulting sectors to expand export sales through trade shows, exhibits, missions, joint ventures and licensing opportunities. **Contact:** Department of Economic Development, Government of Alberta, Industry Development Branch, 9th Floor, Pacific Plaza, 10909 Jasper Avenue, Edmonton, Alberta, Canada T5J 0M8.

Alberta Opportunity Company

The company provides funds for growth, expansion and diversification of industry when other forms of conventional financing are not readily available. This includes direct loans at market rates for up to 15 years and loan guarantees. Emphasis is placed on small business in smaller communities. **Contact:** Alberta Opportunity Company, P.O. Box 1860, Ponoka, Alberta, Canada T0C 2H0.

Department of Tourism and Small Business

The Department aims to develop Alberta as a year-round destination for tourists by offering marketing and development services to the tourist industry. Small business is assisted by means of counselling activities, management consulting, small business guides, community economic development, and an industrial land and business site location program. **Contact:** Department of Tourism and Small Business, Government of Alberta, 16th Floor, Capitol Square, 10065 Jasper Avenue, Edmonton, Alberta, Canada T5J 0H4.

British Columbia

Canada's Pacific province, British Columbia has an extensive export-oriented resource-based economy in which forestry, mining, fishing and agriculture predominate. British Columbia's geographical position has made it a natural site for the development of important export industries with direct access to Pacific Rim and other world markets. In fact, the province's largest city, Vancouver, is Canada's gateway for trade with Japan, China and other Asian countries, the Western United States, Latin America and Europe. British Columbia's principal manufacturing firms are closely tied to the province's natural resources, essentially forest products, pulp and paper, mineral commodities and hydrocarbons. Several of the province's industries have recently experienced substantial growth with pulp and paper, lumber and plywood production and fish products heading the list.

Ministry of Industry and Small Business Development

The Ministry offers a variety of programs designed to stimulate industrial and export development, especially in secondary manufacturing. Its export services include programs related to trade missions, market development, incoming buyers and trade shows. The Ministry's technical services assist companies to expand their facilities, diversify their product lines or establish new businesses by means

of financial support for hiring outside professionals to help develop corporate plans and operations.

The Ministry also coordinates and manages a number of federal-provincial programs designed to encourage the economic and industrial development of the province. One such program is a \$70-million agreement to provide assistance for research, regional economic development commissions, small business and community industrial development (industrial parks, sites, malls and advance factory space). A \$60-million agriculture and rural development program provides assistance for research, planning, training, market promotion, coordinated resource management, primary resource development, support services and community development. A third program, the result of a \$50-million agreement, provides assistance to the province's tourist industry. All these programs have geographical target areas which generally exclude the areas in and around Vancouver and Victoria. Because of geographical exclusions, the Ministry has implemented, on a year-by-year basis, a low-interest loan program for small businesses in the Vancouver and Victoria areas. **Contact:** Director, Business Development, Ministry of Industry and Small Business Development, Robson Square, 800 Hornby Street, Vancouver, British Columbia, Canada V6Z 2C5; or, Assistant Deputy Minister, Program Implementation and Coordination Division, Ministry of Industry and Small Business Development, Parliament Buildings, Victoria, British Columbia, Canada V8V 1X4.

British Columbia Development Corporation (BCDC)

The BCDC provides financing in the form of term loans, loan guarantees, performance bonds, indemnities to chartered banks and leasing of buildings. While there is no limit on the amount of funds the Corporation may provide, in large-scale projects it prefers to provide assistance in conjunction with other financial institutions. As well as its own corporate lending activity, the BCDC administers the province's Low Interest Loan Assistance Program by virtue of which loans can be made to manufacturing or processing businesses that wish to modernize, expand or establish in the less developed areas of the province. Finally, the BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the Land Development Division. The BCDC acts as project manager of large capital projects in British Columbia. **Contact:** British Columbia Development Corporation, 272 Granville Square, 200 Granville Street, Vancouver, British Columbia, Canada V6C 1S4.

Statistical tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status				First Six Months		
	1977	1978	1979	1980	1980	1981
Reviewable new cases	261	360	380	337 ^r	179	173
Carryover from previous period	65	73	106	114	114	123
Total of above	326	433	486	451 ^r	293	296
Total resolved	253	327	372	328 ^r	183 ^r	113
Allowed	231	282	320	249	151	91
Disallowed	12	28	24	37	19	13
Withdrawn	10	17	28	42 ^r	13 ^r	9
Carried over to next period	73	106	114	123 ^r	110	183
Allowed cases as percent of resolved (%)	91	86	86	76	83	81
Value of assets, all cases (\$000,000)	1,145	4,489 ^r	4,049	3,988 ^r	1,134	1,648

Table 2 — Country of control				First Six Months		
	1977	1978	1979	1980	1980	1981
Total	261	360	380	337 ^r	179	173
United States	171	243	248	197 ^r	101	115
United Kingdom	40	47	52	53	30	23
Other Europe	41	52	68	65	34	28
Austria	-	-	1	-	-	-
Belgium	2	1	2	1	-	-
Denmark	2	1	1	1	1	1
Finland	-	-	2	3	1	-
France	6	5	9	12	4 ^r	4
Germany, West	15	17	22	20 ^r	9	10
Greece	-	-	1	-	-	-
Italy	3	1	2	2 ^r	2	-
Liechtenstein	-	1	1	2	1	-
Luxembourg	-	1	-	-	-	-
Netherlands	4	8	6	7	5	3
Norway	-	1	-	1	-	-
Spain	-	-	1	-	-	-
Sweden	2	7	13	6	4	6
Switzerland	7	9	7	10	7 ^r	4
All other	9	18	12	22	14	7
Australia	1	-	3	4	3	1
Bermuda	-	-	1	1	1	1
Japan	3	7	2	2	2	2
Others	5	11	6	15	8	3
Allowed cases as percent of resolved	%	%	%	%	%	%
United States	91	87	85	74 ^r	80 ^r	76
United Kingdom	95	78	87	79	86	77
Other Europe	90	89	88	78	89	96
All other	80	80	93	76	92	83

Table 3 — Industrial sector				First Six Months		
	1977	1978	1979	1980	1980	1981
Total	261	360	380	337 ^r	179	173
Primary	20	30	29	17	9	9
Agriculture, fishing and trapping	4	5	4	1	-	1
Forestry	1	1	-	2	1	-
Mines, quarries, oil wells	15	24	25	14	8	8
Manufacturing	108	162	178	141 ^r	72 ^r	71
Food, beverage and tobacco	15	15	14	14	6	4
Rubber, plastic and leather	6	12	5	6	3	6
Textiles, knitting and clothing	5	4	14	7	3	2
Wood, furniture and paper	12	14	10	8	3	7
Printing, publishing, and allied	2	4	5	4	2	4
Primary metal and metal fabrication	12	20	34	24	11	9
Machinery and transport equipment	14	28	43	23 ^r	15	13
Electrical products	12	16	20	17	12	6
Non-metallic mineral products	5	8	4	6	2	4
Petroleum and coal products	1	1	1	-	-	1
Chemical	10	22	17	12	6	10
Miscellaneous	14	18	11	20	9	5
Construction and services	133	168	173	179	98	93
Construction	3	1	6	6	2	7
Transportation, communication, utilities	10	10	9	9	3	4
Trade	72	101	93	93	58 ^r	38
Finance, insurance, real estate	15	19	12	27	9	9
Community, business, personal services	33	37	53	44	26	35

* Provision for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status

	First Six Months					
	1977	1978	1979	1980	1980	1981
Reviewable new cases	328	331	379	398 ^r	199	213
Carryover from previous period	58	52	64	70	70	129
Total of above	386	383	443	468 ^r	269	342
Total resolved	334	319	373	339	182	145
Allowed	297	273	323	287	160	106
Disallowed	12	21	22	27	14	17
Withdrawn	25	25	28	25	8	22
Carried over to next period	52	64	70	129 ^r	87	197
Allowed cases as percent of resolved (%)	89	86	87	85	88	73
Planned investment, all cases (\$000,000)	803	323	202	1,005	339	471

Table 5 — Country of control

	First Six Months					
	1977	1978	1979	1980	1980	1981
Total	328	331	379	398 ^r	199	213
United States	184	192	205	223 ^r	114	120
United Kingdom	30	26	45	37	15 ^r	23
Other Europe	85	80	82	111	58 ^r	37
Austria	-	3	-	3	1	-
Belgium	-	1	5	1	-	1
Denmark	6	4	2	7	4	2
Finland	1	1	7	1	1	4
France	17	16	15	23	6	6
Germany, West	26	18	19	25	12	11
Gibraltar	-	-	-	1	1	-
Greece	1	1	-	1	1	-
Ireland	-	1	1	-	-	1
Italy	10	10	6	14	10	3
Liechtenstein	-	-	-	1	1	-
Luxembourg	-	1	-	1	-	-
Monaco	1	-	-	-	-	-
Netherlands	3	1	4	12	6	4
Norway	3	3	1	3	2	-
Portugal	-	1	-	-	-	-
Spain	-	2	1	2	2	-
Sweden	9	5	6	9	7	2
Switzerland	8	12	15	7	4	3
All other	29	33	47	27	12 ^r	33
Australia	3	3	2	3	2	-
Hong Kong	3	3	4	6 ^r	3	16
India	1	1	1	-	-	-
Japan	10	6	17	3	1	7
Others	12	20 ^r	23	15 ^r	6 ^r	10
Allowed cases as percent of resolved	%	%	%	%	%	%
United States	88	86	86	84	92	73
United Kingdom	82	85	92	83	88	77
Other Europe	95	87	88	89	90	71
All other	81	79	83	75	61	71

Table 6 — Industrial sector

	First Six Months					
	1977	1978	1979	1980	1980	1981
Total	328	331	379	398 ^r	199	213
Primary	22	27	16	42	22	14
Agriculture, fishing and trapping	6	2	-	7	4	2
Forestry	2	2	1	2	1	-
Mines, quarries, oil wells	14	23	15	33	17	12
Manufacturing	94	99	100	126	60	61
Food, beverage and tobacco	7	6	11	11	5	4
Rubber, plastic and leather	5	5	9	11	6	3
Textiles, knitting and clothing	9	5	8	6	3	7
Wood, furniture and paper	5	6	9	14	5 ^r	5
Printing, publishing, and allied	-	4	5	4	1	3
Primary metal and metal fabrication	19	12	13	24	15	10
Machinery and transport equipment	19	19	20	18 ^r	5	13
Electrical products	5	7	8	13	10	2
Non-metallic mineral products	5	6	1	5	2	3
Petroleum and coal products	-	-	-	1	-	1
Chemical	3	6	7	9 ^r	5 ^r	4
Miscellaneous	17	23	9	10	3	6
Construction and services	212	205	263	230 ^r	117	138
Construction	4	14	12	12	6	10
Transportation, communication, utilities	5	11	11	7	5	4
Trade	133	103	156	129	63	72
Finance, insurance, real estate	16	11	14	7	3	7
Community, business, personal services	54	66	70	75 ^r	40	45

* Provisions for review of new businesses came into force October 15, 1975.

Articles in previous issues:

Vol. 2, No. 1	<p>New incentives for industrial research and development</p> <p>Investment opportunities and prospects in the Atlantic provinces</p> <p>FIRA procedures: clarifying some legal issues</p> <p>Banking in Canada: the chartered banks</p> <p>The short-term money market in Canada</p> <p>Corporate concentration and performance: recommendations of the Royal Commission</p>
Vol. 2, No. 2	<p>An introduction to Canada's coal industry</p> <p>European investment in Canada:</p> <ul style="list-style-type: none"> West European Soviet and East European <p>Canadian participation in foreign-owned businesses in Canada:</p> <ul style="list-style-type: none"> Management Equity <p>Small business in Canada</p>
Vol. 3, No. 1	<p>Japanese investment in Canada</p> <p>Canada's industrial relations in international perspective</p> <p>Acquisitions by multinationals</p> <p>Capital markets in Canada</p> <p>Westinghouse Canada: beyond the branch plant</p> <p>Investment opportunities in energy conservation</p>
Vol. 3, No. 2	<p>The challenge of Alberta's non-conventional oils</p> <p>A new financial community in the West</p> <p>U.S. investment in Canada</p> <p>O&K Orenstein & Koppel: a case study</p> <p>Pétromont: a key to Montreal's economic future</p> <p>Are foreign subsidiaries more innovative?</p>
Vol. 4, No. 1	<p>Canada's forest products industry</p> <p>German investment in Canada</p> <p>Ontario's economy: strength through diversification</p> <p>Tidal power: the new wave in electricity generation</p> <p>Foreign investment in the service sector</p>
Vol. 4, No. 2	<p>Quebec's new economic landscape</p> <p>Some practical advice on Canada's foreign investment review process</p> <p>New opportunities in Canadian banking</p> <p>A resurgent Canadian aerospace industry</p> <p>The Alaska Highway Gas Pipeline: not your everyday shopping list</p> <p>The canadianization of Brinco</p>

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FOREIGN INVESTMENT REVIEW

A journal on
investment conditions in

CANADA

Spring 1982 Vol. 5, No. 2



Canada's advanced-technology industry

The challenge, the opportunity in Canada's offshore

An international licensing agreement for Canadian technology

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Photo: NASA

The Canadarm, Canada's contribution to the NASA space shuttle program, was built by SPAR Aerospace Ltd. of Toronto, under a cooperative agreement between NASA and the National Research Council of Canada. The Canadarm will be used in space to deploy and retrieve satellites.

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Government economic departments reorganized

In January 1982, Prime Minister Pierre Elliott Trudeau announced plans to reorganize the departments of the Canadian government responsible for economic matters. "This reorganization is a necessary response to changing regional and industrial circumstances and a more competitive and complex trading world," Mr. Trudeau said.

The reorganization project consists of the creation of a Ministry of State for Economic and Regional Development, which will develop a major project management capability; the creation of a Department of Regional Industrial Expansion to oversee the national and regional coordination of government industrial development policies and programs; and the restructuring of the Department of External Affairs to give a new priority to the expansion of international trade and economic issues.

The Ministry of State for Economic Development will take on added policy, analysis and coordination responsibilities when it becomes the Ministry of State for Economic and Regional Development (MSERD). The new department will assist Cabinet with analysis and information on regional economic development issues. With a system of regional offices, MSERD will be able to help ensure that government policies are sensitive to regional issues and to help regional officials of other Canadian government departments to understand the objectives and decisions of Cabinet. The new department will also expand its capacity to analyse global trade strategy, in particular the trade dimensions of regional and sectorial economic development policies.

Parts of the former departments of Industry, Trade and Commerce and Regional Economic Expansion will fuse as the Department of Regional Industrial Expansion (DRIE). In addition to the various industrial incentives programs of the two predecessor departments, the DRIE minister will have responsibility for the Foreign Investment Review Agency, the Federal Business Development Bank, Canadian Patent Development Limited, National Design Council, Enterprise Development Board, Canadian Industrial Renewal Board, Textile and Clothing Board, Cape Breton Development Corporation, Atlantic Development Council, the Office of Industrial and Regional Benefits and the Industrial Opportunities Program Board. The minister will also head the

new Office of Industrial Adjustment, which was announced as part of the reorganization project. A Minister of State, Small Business and Tourism will assist the Minister of Regional Industrial Expansion.

At the Department of External Affairs, the present Secretary of State for External Affairs will be joined by a Minister for External Relations and a Minister for International Trade. This restructuring will allow the department "to aggressively pursue international export markets and give greater priority to economic matters in the development of foreign policy," Prime Minister Trudeau said in announcing the changes.

The new Minister for International Trade will be responsible for the trade part of the former Department of Industry, Trade and Commerce, including the Trade Commissioner Service, the Export Development Corporation and the Canadian Commercial Corporation.

The Minister of State for External Relations will support the Secretary of State for External Affairs in the areas of international social, cultural and humanitarian affairs, relations with francophone Africa, the Agence de coopération culturelle et technique and other assignments.

In making the announcement, Prime Minister Trudeau said that the reorganization will facilitate economic development in all regions of Canada and will assist in "marketing the product of these developments in a tough and competitive world trade environment."

Industrial and regional benefits initiatives

In August 1981, the Government of Canada announced measures to increase its ability to identify and stimulate industrial benefits associated with, in particular, the development of Canada's natural resources. These measures included the creation of an Office of Industrial and Regional Benefits, enunciation of the government's industrial benefits objectives and guidelines for owner/sponsors of major projects, and formation of a Committee on Industrial and Regional Benefits.

The Office of Industrial and Regional Benefits seeks to ensure that major projects (usually those involving \$100 million or more in capital investment) make maximum use of Canadian planning skills, project development ability, machinery and materiel supply capability, and capacity for further processing of resources. The mandate of the office was strength-

ened in the reorganization of economic departments in January 1982. Part of the Department of Regional Industrial Expansion (formerly Industry, Trade and Commerce), the office uses the results of government-industry information exchanges to ensure that Canada realizes the greatest possible industrial and regional benefits.

In making the announcement on behalf of the government, The Honourable Herb Gray, Minister of Regional Industrial Expansion said, "The development of major projects can play a critical role in fostering regional economic diversification, enhanced economic growth, and industrial restructuring in Canada during this decade and beyond. But for this to happen Canadian companies must have timely access to full information on project requirements and early participation in the bidding process."

The government's industrial objectives are designed to meet three needs: to immediately improve the access for Canadian companies to opportunities generated by projects within the Canadian market; to ensure that the Canadian industrial structure is developed to extract maximum benefits from projects and help establish expertise in areas that will permit Canadian firms to compete anywhere in the world; and to strengthen the capability of the Canadian engineering and construction industry.

The Industrial and Regional Benefits Guidelines for owner/sponsors of major projects set out the information they should provide and the steps they should take to meet the government's expectations. The guidelines are aimed at ensuring that major projects will provide equal opportunity for Canadian participation, which will in turn result in optimum benefit to Canada in terms of national and regional industrial development.

Mr. Gray said, "In drawing up and applying these measures, the federal government fully recognizes our international trading obligations. These initiatives will apply equally to all firms operating in Canada."

The interdepartmental Committee on Industrial and Regional Benefits, with the secretariat support of the Office of Industrial and Regional Benefits, will play an important role in the administration of the industrial benefits provisions of Bill C-48 "The Canada Oil and Gas Act". The Committee continues the work of the Advisory Committee on Industrial Benefits, which it replaced, but with a strengthened capability.

More new foreign banks

Since the new Bank Act took effect in December 1980, a total of 47 foreign bank subsidiaries have been authorized in Canada, an increase of 36 since the last issue of the *REVIEW* was published. According to the Department of Finance, a further group of foreign banks is expected to be established in the first half of 1982, bringing the total to 60. About half of these are expected to be conversions of non-bank financial corporations already operating in Canada, and the other half new incorporations.

Changes relating to the National Energy Program

Following a series of consultations by senior officials with a representative group of business people and professionals, a number of modifications have been made to the means of measuring Canadian ownership rates and control status for purposes of the National Energy Program.

These changes are aimed primarily at reducing the administrative tasks associated with the program, thereby facilitating compliance with it. Some rules will apply in the first year only, while others will apply on a continuing basis.

For example, the definition of "small applicant", a continuing rule, has been amended to permit relatively small businesses in the oil and gas sector to apply for a Canadian ownership rate certificate with a minimum of paperwork. This easing would be effected through raising the size thresholds for firms that would be entitled to qualify as small applicants. Second, the rules respecting the treatment of securities that may be converted into corporate shares, such as convertible shares and debentures, as well as warrants, rights and options, would be adjusted so that fewer applicants would be required to trace the ownership of such securities in measuring their Canadian ownership rate than had been previously planned.

For further information, contact the Petroleum Monitoring Agency, P.O. Box 4514, Postal Station "E", Ottawa, Ontario K1S 5B5.

Real capital spending up in 1982

Real capital spending in Canada may increase by about 9 percent in 1982 over the 1981 level, according to the October

1981 Department of Industry, Trade and Commerce (now Department of Regional Industrial Expansion) Survey of Business Capital Investment Intentions of Large Firms. The approximately 300 large firms responding to the survey indicated planned new plant and equipment expenditures of about \$35 billion in constant 1981 dollars, an increase of about \$3 billion over 1981.

The survey also showed that:

- Capital spending by manufacturing firms is expected to drop slightly in 1982.
- Non-manufacturing sector capital spending is expected to increase by about 13 percent over 1981.
- The Atlantic region, the Prairies and British Columbia are areas of strength,

with expected percentage increases above the national average.

- In 1982, sales are expected to increase by about 14 percent in current dollar terms, or about 2 percent in real terms.

After adjustment, the survey results suggest that for 1982 actual or realized business spending on new plant and equipment (excluding housing) for all businesses in Canada may be up 2 to 3 percent in real terms over 1981. (Adjustment is required because the survey does not cover smaller firms, investments in housing or agriculture, direct government outlays, etc.) This compares with estimated increases for previous years of 5 to 7 percent for 1981, 8.6 percent for 1980, and 12.1 percent for 1979.

Capital expenditures of selected large companies* for 1981 and plans for 1982 — Canada (Constant 1981 \$ Millions)

	1981 Reported in Oct. 1981	1982 Reported in Oct. 1981
Industry		
Food & Beverages	401.1	384.3
Forest Products	2,055.5	1,950.2
Primary Metals	1,668.7	1,637.6
Chemicals	1,155.0	1,525.0
Transportation Equipment	1,362.2	802.5
Other Manufacturing	1,357.7	1,593.5
Total Manufacturing	8,000.2	7,893.1
Mining Companies	2,143.2	2,443.9
Oil & Gas Companies	7,270.7	9,078.7
Oil & Gas Pipelines	1,915.6	2,131.8
Transportation & Storage	1,976.1	1,992.2
Communications	2,823.8	2,939.0
Electric Utilities	6,879.2	7,216.7
Trade, Finance and Other Commercial	1,180.8	1,475.0
Total Non-Manufacturing	24,189.4	27,277.3
TOTAL	32,189.6	35,170.4

*Only the 279 firms that reported for the April and October 1981 surveys are included.

Source: Department of Industry, Trade and Commerce

Canada's advanced-technology industry

by Marie Plante

When analysing the advanced-technology industry, one immediately tends to look at the most obvious technologies within the industry, such as computer applications, microelectronics, fibre optics, lasers, biotechnology and so on. With such an approach, however, one can get lost in a maze of specialized activities and lose sight of the heart of the matter: research and development (R&D).

Although no one precise definition of the advanced-technology industry has been agreed upon, organizations such as Statistics Canada have developed a number of data bases that could lead to a definition. In its studies the Ministry of State for Science and Technology (MOSST), which relies on Statistics Canada data, has used certain indicators, such as the ratio of R&D spending to sales, to establish which industrial groups belong to the advanced-technology category. MOSST has found that regardless of the indicator used, the industrial profiles obtained are consistent.

The National Research Council (NRC), the Canadian government research organization, uses a definition based on the ratio of engineers and scientists to all employees, a good indicator of a company's potential to create, adapt or modify new advanced technology. The NRC's specific threshold is three to four engineers or scientists per 100 employees. This definition excludes companies that may be included in an advanced-technology industrial category but do not depend for success on their in-house technological capability. Thus, using the NRC's definition, Canada's advanced-technology industry comprises approximately 1,000 companies that are responsible for 80 to 90 percent of all industrial research and development in Canada. Within this group are 200 companies with at least 10 scientists or engineers for every 100 employees, that concentrate their activities in the aerospace, computer-electronics, pharmaceutical and petrochemical products fields. The advanced-technology industry as a whole, however, includes significant parts of industries such as pulp and paper, chemical products, primary metals, transportation, scientific instruments, food processing and industrial services. So defined, Canada's advanced-technology industry accounts for 10 percent of the gross national product.

In terms of the balance of trade, Statistics Canada data indicate that in 1979 Canada registered a \$7-billion trade defi-

cit in advanced-technology products (inorganic chemical products, machinery, aircraft and parts, electrical products, scientific instruments and office machines). However, Canada's exports of these products have increased steadily, from \$1.6 billion in 1970 to \$6.7 billion in 1979, a reflection of the growing dynamism of the industry.

In fact, Canada has become a world leader in several advanced-technology fields. In particular, it has a reputation for excellence in telecommunications and satellite systems, as shown by Canadian accomplishments in fibre optics and telephones, development and application of high-frequency satellite systems, and the manipulator arm carried by NASA's space shuttle Columbia. Numerous companies specialize in the office equipment field, producing a variety of data and text processing systems. In addition, Telidon, an interactive television system developed in Canada, uses the world's most advanced videotext technology. In aerospace, Canada has carved an important place in international markets for her short takeoff and landing (STOL) aircraft, private business jets, small turbine engines and a wide variety of electronic systems. Canadian technological strength in mining, geophysics, commercial explosives and underground excavation equipment may be less well-known, but is also considerable.

Structure of the industry

In contrast to most industries, the advanced-technology industry is active in all economic sectors. As mentioned earlier, the element common to advanced-technology companies, be they in resources, manufacturing or services, is research and development.

The largest private industrial research and development company in Canada is Bell-Northern Research (BNR). Owned by Northern Telecom and Bell Canada, BNR earmarked \$165 million in 1981 for the development of new telecommunications

and computer products. It has more than 2800 employees, of whom about 1700 are scientists, engineers, industrial designers, technicians and other professionals, and it supports the manufacturing and service functions of Northern Telecom and Bell Canada through its design and technology research.

With combined total revenues of \$6 billion in 1980, the Bell Canada group is one of Canada's largest enterprises, and a prime example of a fully integrated advanced-technology enterprise. Bell-Northern Research carries out research in the areas of activity of its owners. Northern Telecom manufactures and markets a wide range of telecommunications equipment, digital transmission and switching systems and information processing systems and equipment destined for the "office of the future". Bell Canada is, in turn, Northern Telecom's principal customer. In addition to maintaining telecommunications services and installations in six provinces and in the Northwest Territories, Bell Canada offers consulting services to numerous foreign telecommunications organizations. But the Bell Canada group is different from most Canadian advanced-technology companies due to its size.

In fact, most advanced-technology companies are small- or medium-sized. The Canadian Advanced Technology Association (CATA), whose membership includes more than 110 Canadian-controlled advanced-technology companies, has drawn a profile of the typical member. In the first year, the company realizes sales of \$200,000; it grows at a rate of 100 percent a year for the first four years, and 50 percent a year thereafter. By the tenth year, annual sales surpass \$18 million. Thus, after 10 years, sales bring in a cumulative total of more than \$52 million, operating capital required amounts to \$7.3 million, and R&D expenditures rise to \$2.6 million.

Some of Canada's advanced-technology companies are found in or near Ottawa, the nation's capital, partly because historically the Canadian government has been a major client for technological businesses. In addition, a significant research and development infrastructure has existed for a long time in the national capital, including the National Research Council and Bell-Northern Research, respectively the leading public and private research organizations in Canada. Both have been important spawning grounds for enterprising scientists and engineers who have founded several advanced-technology firms in the Ottawa area.

One of the best known examples of rapid growth in Canada, Mitel Corporation of Kanata (near Ottawa), was founded in 1973 and now has 4200 employees in 12 factories and 38 sales offices in Canada and abroad. In 1975 Mitel's sales were \$300,000, but for the fiscal year ending in February 1981, they had risen

Major R&D performers in Canada

	\$ millions ^a	% of sales	Principal field of activity
Bell Canada ^b	183.7	3.5	communications
Pratt and Whitney	47.0	10.2	aerospace
Canada Development Corporation	35.8	1.7	various (holding company)
Alcan Aluminum Ltd.	32.8	0.6	aluminum
Imperial Oil Ltd.	32.5	0.5	petroleum
Gulf Canada Ltd.	30.0	1.0	petroleum
Control Data Canada	18.5	14.7	data processing
CIL Inc.	17.0	1.9	chemical products
Canadian General Electric	16.2	1.2	electrical and electronic products
Inco Ltd.	16.0	0.6	mines
IBM Canada	15.0	1.2	data processing
CAE Electronics	12.5	37.9	electronic products
Canadian National	10-15 ^c	0.3-0.5	transportation and communications

^a 1979 figures

^b Including Northern Telecom

^c Estimate

Source: Ministry of State for Science and Technology

to \$111 million. Estimates for the last fiscal year are \$200 million. The company, whose products include integrated circuits, is among the world's largest manufacturers of PABX (private automatic branch exchange) telephone systems.

Numerous other companies have experienced similar growth and have been successful in international markets. One such company, Systemhouse Ltd. of Ottawa, a specialist in the design of computer systems and software, has opened nine subsidiaries in the United States and expects to have 30 by 1983. Lumonics Inc. of Kanata, the largest Canadian laser manufacturer, specializes in pulsed gas lasers. One of its contracts, with the European Economic Community, is for food labelling codes. Comterm Inc. of Montreal manufactures microprocessor-based display terminals for the data transmission industry. One of its principal product lines is the object of a contract with Saudi Arabia that runs until 1983. AES Data Ltd. of Montreal produces two distinct types of text processing system, employs more than 2000 people in Canada and abroad, and sells its products in more than 50 countries.

Other examples include Develcon Electronics Ltd. of Saskatoon, Saskatchewan, whose products include limited distance data transmission devices (modems) and microprocessor-controlled data transfer equipment; Gandalf Technologies of Manotick, Ontario, a group of three data

communications companies; Epitek International of Canada of Kanata, which manufactures thick-film resistor networks and chip hybrid microcircuits; Leigh Instruments of Ottawa, a specialist in avionics which also produces air traffic control systems, frequency control devices and optical character recognition systems. These are but a few examples.

A trend seems to be emerging in small- and medium-sized advanced-technology companies. In an effort to take advantage of economies of scale and to become more competitive, they are forming consortiums for the realization of specific projects. For example, Canadian Education Microprocessor Corp. was established to design and manufacture a micro-computer for the educational market. OCRA (Office Communications Research Associates), a group including, among others, Gandalf, Mitel, Nabu Manufacturing Corp., CN-CP Telecommunications, and cable companies, operates in the "office of the future" equipment market.

Another large group of companies, ones that do not fit the CATA profile, rounds out the picture of the advanced-technology industry. Some of them even approach Bell Canada in terms of size. Their activities include pharmaceutical and chemical products, food, pulp and paper, electrical machinery and aerospace. A number of these specialize in biotechnology, a field that may one day rival electronics in industrial potential.

Computer industry

Any review of the advanced-technology industry must include the computer industry. Computer applications support the most diverse industries, from forest products to transportation, from mining to the "office of the future".

According to the results of a survey by Evans Research Corp. of Mississauga, Ontario, annual revenues of the Canadian computer industry exceeded \$4 billion in 1980. In 1975, these revenues had been just \$1 billion, or 0.6 percent of GNP. The industry experienced annual growth rates between 17 and 25 percent over the last five years, and in 1980 accounted for more than 1.4 percent of GNP. In the text processing and small business computer sector, revenues rose 36 percent over 1979 to \$428 million in 1980, perhaps due to the growing popularity of "office of the future" equipment.

Among computer applications is CAD/CAM technology, in which design and

manufacturing are computer-assisted. CAD/CAM techniques are particularly important in light of the present state of Canadian manufacturing industries. In fact, over the next decade, manufacturing industries must increase their productivity enough to maintain traditional markets and acquire new ones, despite reduced tariff protection and growing foreign competition. CAD/CAM technology is proving to be an important, if not essential, tool in the effort to achieve a level of productivity that will permit the Canadian manufacturing industry to be internationally competitive. (A more detailed description of one CAD system can be found in the article "An international licensing agreement for Canadian technology" in this issue.)

Common challenges

Advanced-technology companies face a number of special challenges. For example, to be viable, an advanced-technology

company must offer a world-class product or service that is not just competitive, but the best of its kind. Because the Canadian market is too small for products and services of this complexity and specialization, it is essential for advanced-technology companies to turn to export markets, to build recognition for and to market their products in the highly competitive international marketplace. CATA member companies export an average of 70 percent of their production. This export orientation is even more evident in the aerospace industry, where 88 percent of sales in 1981 were outside Canada.

One of the most pressing problems for the industry is a shortage of skilled manpower which threatens the industry's growth. This has led to consultations between government, industry and educational institutions aimed at establishing training strategies. Not only do advanced-technology companies need scientists and highly-skilled technicians, they also need marketing people who have an intimate knowledge of the technology they are hired to sell.

Advanced-technology companies also face a special financing challenge, which corresponds directly to the nature of their activities, specifically the high risk associated with their ventures and the often considerable time lag between the research and marketing stages. Like other small businesses, start-up funds often come from personal savings, but with research and development costs added to capital and market development expenditures, this source of funds soon proves insufficient. Unlike other businesses, advanced technology firms can seldom obtain full financing from the chartered banks. For the risk capital they need, these companies must approach other financial institutions and venture capital investors.

In addition, because of their relatively small size and the large element of risk associated with them, advanced-technology companies do not have easy access to financial markets, although the huge success of a few such companies has helped to bring the financial community and the industry closer together. Studies have been undertaken to find ways of facilitating capital formation for smaller companies. While there are few advanced-technology companies whose shares are traded publicly, it is likely that more of them will appear on the financial markets over the next few years. Indeed, since 1979 more than six advanced-technology companies have had their shares listed on Canadian stock exchanges.

R&D and the government

Last year the Ministry of State for Science and Technology announced the Government of Canada's national research and development expenditure

The largest revenue producers in the Canadian computer industry

Company name	Ownership	\$ millions	
		Total revenues 1980	EDP revenues ^a 1980
1. IBM Canada Ltd.	U.S.	1,506.0	1,120.0
2. Northern Telecom Ltd.	Can.	2,055.0	568.2
3. Digital Equipment of Canada Ltd.	U.S.	163.7	163.7
4. Control Data Canada Ltd.	U.S.	162.6	162.6
5. NCR Canada Ltd.	U.S.	176.6	150.1
6. AES Data Ltd.	Can.	155.0	147.3
7. Sperry Rand Canada Ltd.	U.S.	124.0	124.0
8. Philips Data Systems Ltd.	Netherlands	100.3	100.3
9. Honeywell Ltd.	U.S.	260.5 ^b	85.0
10. Burroughs Business Machines Ltd.	U.S.	105.0 ^b	83.0
11. Canada Systems Group (EST) Ltd. ^c	Can.	77.9	77.9
12. Datacrown Inc.	Can.	68.6	68.6
13. Hewlett-Packard (Canada) Ltd.	U.S.	99.4 ^b	49.7
14. Xerox of Canada Ltd.	U.S.	484.2	48.4
15. Mitel Corp.	Can.	43.4	43.4
16. Amdahl Ltd.	U.S.	43.0	43.0
17. B.C. Systems Corp.	Can.	40.2	40.2
18. Computel Systems Ltd. ^c	Can.	38.1	38.1
19. I.P. Sharp Associates Ltd.	Can.	35.5	35.5
20. MAI Canada Ltd.	U.S.	35.0	35.0
21. Memorex Canada Ltd.	U.S.	32.3	30.8
22. Storage Technology of Canada	U.S.	28.8	28.8
23. Gandalf Data Communications Ltd.	Can.	26.4	26.4
24. Canadian General Electric	U.S.	N/A	26.0
25. Olivetti Canada Ltd.	Italy	N/A	24.0

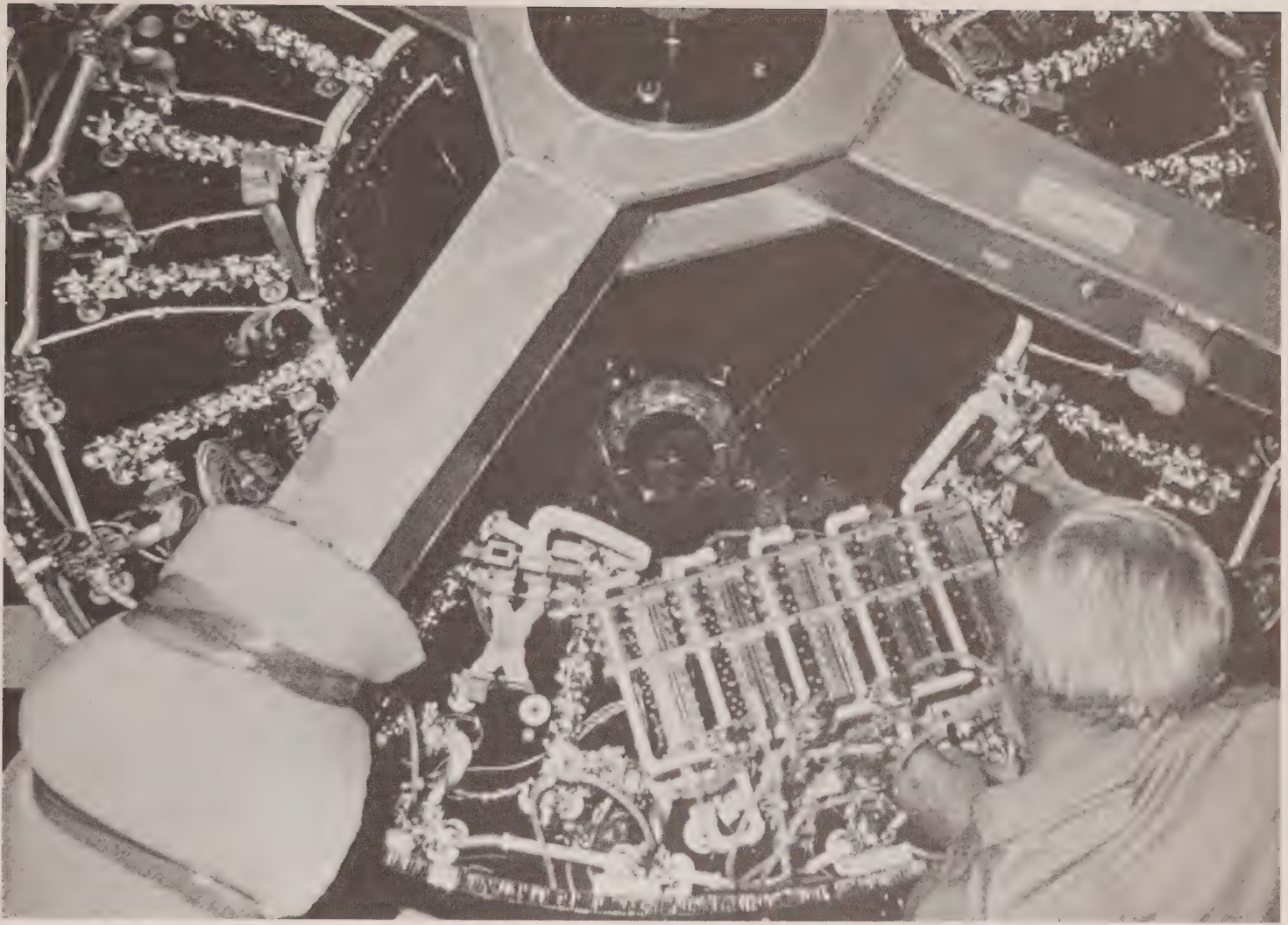
^a Includes domestic, export and offshore EDP-related

^b Estimated by Evans Research Corporation

^c These companies merged in 1982

N/A Not available

Source: Evans Research Corporation



Canadian industry excels in the design and construction of telecommunications satellites.

objective of 1.5 percent of GNP by 1985. The industry share of this target was pegged at more than 50 percent, and the government share at 33 percent. Statistics Canada estimates that, in 1981, research and development expenditures in Canada totalled \$3.5 billion, an increase of 16 percent over 1980. These expenditures represent 1.1 percent of GNP, the highest percentage since 1972.

Among recent government initiatives to encourage research and development are: the provision for funding a microelectronics centre in each province; a microelectronics information program designed to give all industrial sectors access to new techniques; and an additional \$27.5 million for further development and marketing of Telidon videotext technology. In addition, the government has announced that it will add \$132.1 million to the budget for activities in space, bringing its space-program commitment to \$475.8 million between 1981 and 1985. These funds will reinforce and promote the Canadian contribution to telecommunications, remote sensing and technological growth, as well as enhance Canadian participation in large European space projects. Federal expenditures on R&D, not counting fiscal

expenditures, will approach \$1.5 billion in 1982-83. In addition, numerous programs of assistance for research and development have been put in place by the governments of Canada and the provinces.

Foreign control and technological development

Too often Canadian subsidiaries of foreign companies lack autonomy in decision-making related to research and development, which creates a dependence on parent companies for technology and limits opportunities for innovation in Canada. This has resulted in the relatively low level of R&D carried out by foreign-controlled businesses in Canada. For this reason the government included a criterion in the Foreign Investment Review Act that deals with the effect of foreign investments on technological development, innovation and product variety in Canada. It also included a criterion that deals with the compatibility of foreign investments with national and provincial industrial and economic policies, which among other things give a high priority to R&D.

Among the undertakings that have been offered by investors are the support and expansion of Canadian R&D facilities and the establishment of new ones. Others ensure that the results of research and development carried out by Canadian subsidiaries can be effectively used in Canada. Often, this is done by means of world product mandates which give Canadian subsidiaries exclusive responsibility for the research, development, manufacturing and world-scale marketing of products or product lines.

According to FIRA statistics, to the end of December 1981, foreign investors had undertaken to invest more than \$169 million for R&D in Canada. This does not include R&D commitments that are a function of sales levels or gross receipts, or the costs associated with using the research facilities that the investors have undertaken to establish.

To remain internationally competitive, Canada must continue to develop its capacity for technological innovation. Laser technology, fibre optics, microelectronics and so on are increasingly being applied in every industrial sector because they are clearly the building blocks for Canada's industrial future.

The challenge, the opportunity in Canada's offshore

by Bridget Madill

A new, advanced-technology industrial sector is emerging to take up the challenge of exploiting Canada's offshore resources. Ocean industries, those that provide goods and services for offshore commercial and scientific activities, can include any firm that makes equipment or provides a service that could be used in the oceans. They span the range of manufacturing, service contracting and consulting companies, but exclude marine surface transportation and traditional fishing activities.

Ocean industry firms are mainly small, privately-owned, advanced-technology, capital-intensive Canadian companies that sell a low volume of a wide variety of products and offer a broad range of services. They are often undercapitalized and heavily dependent on export markets. Most ocean firms are young — few existed before 1970 — and have an emphasis on the supply of goods and services for offshore oil and gas exploitation.

The problems of all advanced-technology industries, high development costs, large risks, long lead times from concept to sale, shortage of skilled workers, and difficulty in attracting equity or debt financing, characterize ocean firms. With oil and gas multinationals and governments as the major customers so far, developing product credibility with a wider range of buyers and selling to a global market are challenges that must be met by the fledgling ocean industry company.

There are three categories of ocean industry companies. Core companies, which usually produce one specialized product or range of products or services, are almost entirely dependent on the ocean market. Secondary companies are partially dependent on the oceans, and often have developed their marine products or services from their land-based lines. Tertiary companies are those that only incidentally sell products and services, like rope and winches and helicopters, into the ocean markets. Unlike most core companies, secondary and tertiary companies do not necessarily provide advanced-technology products or services.

The Canadian ocean industry sector is a hybrid that does not fall neatly into the pigeonholes of any traditional industrial classification system. That means that statistics are at worst unobtainable, at best unverifiable, and usually not comparable. The lack of statistics collected under standard criteria makes traditional analysis of the industry impossible. However, despite the fact that they almost defy classification and measurement, ocean industries are real, and they are on the brink of an enormous expansion.

According to the 1978 report by the Sector Task Force on the Canadian Ocean Industry, sales by all Canadian

ocean industry firms were probably less than \$5 million in 1969, but by 1976 sales by core companies alone had grown to \$176 million. The domestic ocean industries market, which has historically been too small to support development of Canadian ocean industries, is expected to grow substantially. From \$750 million in 1980, according to the Canadian Ocean Industries Association, the domestic market is forecast to reach \$5 billion by 1990. The world market, estimated at \$8 billion in 1977, is expected to reach \$20 billion by 1985. In 1976, according to the Sector Task Force, 86 percent of the manufacturing output of Canada's ocean industries was exported, while almost all services were related to the domestic market. Another indicator of imminent growth is the forecast by the Canadian Shipbuilding and Ship Repairing Association that \$33 billion in vessels and floating equipment, which includes more than ocean-industry products, will be required by the oil and gas industry in Canada's offshore between 1982 and 1990.

Growth is also apparent in terms of the number of companies engaged in the Canadian ocean sector. In 1976 there were 180 core and secondary companies; by 1981 there were 240 according to the Canadian Ocean Industries Association. Over the same period, the number of core companies rose from 40 to 50. The number of tertiary companies is difficult to determine.

About 70 percent of the ocean industry jobs require skilled or professional employees. The Sector Task Force on the Canadian Ocean Industry estimated that development of Canada's ocean industries could create between 20,000 and 30,000 direct and 150,000 indirect jobs by 1990, numbers almost incomprehensible in relation to a sector that employed just 3,200 in 1976. Based on a formula of 20,000 jobs per billion dollars of investment, this 10-fold growth now seems assured: capital expenditures for offshore petroleum exploration in Canada reached \$326 million in 1980, according to the Petroleum Monitoring Agency, a 58 percent increase over 1979.

It is obvious from these statistics that a new industry has sprung up in just over a decade. The Canadian ocean industry is

expected to continue to grow at an ever-increasing pace for the foreseeable future.

The history

With nearly 60,000 miles (96,000 km) of island and mainland coastline and with lands reaching north into a sea four times the size of the Mediterranean, Canada's last frontier is perhaps her largest. In fact, Canada's is the longest and least populated coastline of any nation in the world. But the offshore is not only her biggest frontier, it is also her most formidable and least understood.

Before the entry of oil and gas companies to the offshore, Canada's involvement with the ocean was one of fundamental research such as ocean-bottom mapping, largely undertaken by government agencies. As something was discovered, it had to be measured. This measurement required appropriate instruments and a suitable platform from which to work. Thus, advances in science were usually intermeshed with advances in technology. The advanced technology in turn often revealed other anomalies that had to be measured, and new instruments were required to do the measuring. Before the oil and gas explorations offshore, government was virtually the only technology-using body operating offshore and therefore almost the only market for ocean technology; it remains a major market today.

By the beginning of the 1970s, it was widely recognized that Canada and the rest of the world would soon need the energy resources locked in the still largely unknown subsea lands. Canada realized that to benefit from activity in her offshore regions and to gain energy self-sufficiency, she had to develop and control the means of exploiting those resources. In 1973 an oceans policy was announced. It was designed to stimulate offshore development, to promote Canadian participation in industrial and technological aspects of the exploitation of the oceans, to encourage a wide range of marine science and technology, to help Canada achieve excellence in operating in ice-covered waters, and to maintain a current information base about Canada's offshore resources.

Coupled with the increased interest in exploiting her offshore resources, in 1977 Canada declared a 200-mile ocean management limit, mainly to control over-fishing off the east coast. This meant that more Canadian fishermen and others would find it profitable to work farther out, and some ships and equipment being used offshore would become obsolete due to their limited capacity and limited range. This in turn meant that there were new opportunities for developing ocean industries. It also meant that enhanced navigation and location techniques would be required to meet the challenges of some of the world's roughest seas in-

fested with ice. At the same time, the increased interest in searching out and exploiting offshore oil and gas presented related challenges. For example, in the Arctic much of the bottom has not been mapped. It was only in November 1981 that the Canadian research ship *Hudson* completed the first detailed survey of part of a deep-draught tanker route through the Beaufort Sea, where much of the Arctic oil exploration is taking place.

For a long time, government was not only the main customer for ocean technology, but also the engineer, builder and supplier. Agencies like the Bedford Institute of Oceanography and the Nova Scotia Research Foundation in Nova Scotia, the Institute of Ocean Sciences in British Columbia, and the Canada Centre for Inland Waters in Ontario for many years spearheaded ocean exploration and ocean technology. With the potential undersea wealth of oil, gas and other minerals and the increasing feasibility of farming the ocean, that orientation had to change, to provide the kinds of information needed for resource exploitation at a pace accelerated by the growing urgency of resource needs. Government, in conducting basic research, had little need to do the engineering on the properties of materials in the ocean environment. Industry, on the other hand, undertook engineering research to overcome new obstacles as they were found. Now, however, the engineering needs and challenges are so urgent that industry alone cannot supply all the necessary products and techniques fast enough to meet them.

Canada decided to attempt to ensure continuing cooperation for the advancement of technology.* It is now policy that development of technology for government in all sectors will be contracted out to private-sector firms. And there is a program that works in reverse — government will help to develop technology proposed by industry. Industry needs government information and research. Government needs industry ideas and experience, and the universities need the support and cooperation of both.

In the early research stage and in the current oil exploration and development phases, equipment could be set up on drifting ice and vessels could run from icebergs and storms. But now an oil production phase has begun. The Petroleum Monitoring Agency reported \$19 million in capital expenditures for offshore oil production in Canada in 1980. Now the platforms will have to be anchored securely. Now the vessels and the people will have to stay and face the ice and storms, because to be economically viable, the oil-producing industry must be able to operate year-round. New technologies that were not essential before the reserves were proven will now have to be developed — and quickly.

The technology

Ocean industries and offshore resource development are very advanced and highly competitive internationally, and much that is available can be adapted to Canadian requirements. Britain's experience in the North Sea has proven valuable to Canada's ocean pioneers, as Houston platform technology aided North Sea production efforts. But while North Sea technology is largely applicable to working at the Sable Island gas field off Nova Scotia or to the Hibernia oil discovery off Newfoundland, it is not transferrable to the northern ice-infested waters off the Labrador coast or in the Beaufort Sea.

No one else, anywhere else, has worked with comparable ice and weather conditions. Off the east coast are the icebergs; in the north the pack ice; and in the Beaufort Sea exceptionally cold water that freezes on the ships and weighs them down as they navigate through fields of undersea icicles called pingos. There is no precedent for Canadian industry to follow, and therein lies Canada's greatest opportunity.

Canada has already developed major capabilities in the offshore: hydrographic seismic surveys, oceanographic surveys, subsea vehicles, cold water and ice technology and subsea well-completion techniques. In fact Canada has one of the world's largest concentrations of oceanographic research facilities in the Halifax-Dartmouth area of Nova Scotia. Canada has excelled in receiving and processing remote sensing information transmitted by the American Landsat satellite, information that can be used to monitor large-scale ice movement, keep track of offshore oil rigs, and watch fishing and pollution in the 200-mile management zone. Despite the fact that semi-submersible and jack-up rigs, built in shipyards in Nova Scotia and Quebec for example, have been successfully exported, Canadian companies may not be able to compete on a world scale in producing large items like platforms, but they already have a foothold in the supply of specialized, and usually advanced-technology, equipment.

There are Canadian ocean industry companies like Meyer Systems Incorporated of Vancouver, with 1981 projected sales of \$100,000, which produces an ocean bottom tracker and plankton counter. Leigh Instruments started in 1961, went public in 1965, and now with about 1300 employees worldwide and annual sales in the area of \$50 million, is known for its sea traffic management system. CTF Systems Inc. has 30 employees who make dive support instrumentation. Canadian Applied Technology, a division of Arrowflight Holdings Limited, makes

*A wider range of government-industry co-operation programs are described in "Canada's advanced-technology industry" and "Assistance to industry for research and development" in this issue.

The Canada Lands



hydrographic data logging and recording systems.

It would be impossible to list all the ocean industry companies operating in Canada, but among the familiar names are Hermes Electronics, Internav Limited, Sea Nav Ltd., Seimac Ltd., Atlantic Marine and Diving Co. Ltd., Artec Canada Limited, Canadian Oceanic Services Inc., Fathom Oceanology Limited, Pallister Resource Management Ltd., and The DALCOR Group.

Much of the high-technology equipment has been developed as a result of some level of government-industry cooperation. An instrument called the BATFISH is one of the best known examples of Canadian offshore technology. Developed at the Bedford Institute of Oceanography, and now manufactured under licence by Guildline Instruments of Smiths Falls, Ontario, the BATFISH is a towed device that can be used to measure water temperatures, plankton levels and salt content of sea water. "Flying" in a sawtooth pattern from the surface to a depth of 300 metres, the instrument makes possible continuous measurement from a moving ship. Guildline, one of Canada's "older" ocean companies, was established in 1951 as a subsidiary of a British company and became independent in 1957. With more than 70 employees and more than \$3 million in annual sales, the company also markets other products overseas, like a laboratory salinometer and its profiling system.

At the request of the Bedford Institute of Oceanography, the Nova Scotia Research Foundation (NSRF) developed an electrical slip ring to be used with a fish

counter. The slip ring was later adapted for use in a deep-diving system, making it possible to bring the power, communications and gas umbilical cord down to the divers, and possible to reel the cord up on a winch. Then NSRF developed a gas slip-ring that would pass helium and oxygen. After creating product credibility through trade shows, NSRF transferred the gas slip-ring technology under licence to a new Nova Scotia company, Undersea Equipment Limited, which today sells advanced-technology diving system components around the world.

The result of a partnership of government and industry, a program called SEABED uses a deep-tow high resolution seismic system developed in 1974 by Hunttec (70) Limited of Toronto to develop methodology for the geological mapping of the seabed and 200 metres into the earth below. Hunttec is a typical Canadian ocean company — about 65 percent of its estimated \$3 million in annual sales is exported. The program is just one of many projects that contribute information to data handling systems like the one being developed at the Bedford Institute which will make information available to all users.

The Newfoundland Oceans Research and Development Corporation (NORDCO), a provincial Crown corporation, was the first company in the world to lasso a million-ton iceberg, proving that it is practical for a small tugboat to steer icebergs away from drilling rigs to ensure the safety of people and equipment. An essentially independent company that began with provincial and federal government financing, NORDCO is a

front-runner in all aspects of ice investigation, with researchers spending weeks on vessels locked in ice to learn how to predict the patterns of movement of ice floes and icebergs. NORDCO also provides an ongoing weather and ice-location service to workers off Canada's east coast.

Research and development facilities, bringing university, government and industry together, are essential to the fledgling ocean industry in Canada. In recognition of this, in Newfoundland, a \$48-million world-class Arctic Vessel and Marine Research Institute is expected to be operational in 1983-84. To be built by the National Research Council at the Memorial University campus in St. John's, the institute will include model test basins for simulation of offshore and ice conditions. It will permit expansion of government and industrial research and design of vessels and other marine structures.

Already in place at Memorial University is the Centre for Cold Ocean Resources Engineering (C-CORE) which has conducted studies into the effect of oil spills on ice, for example. C-Core has discovered that the value of using airborne radar to examine icebergs is limited because the radar signals scatter in the ice, but airborne radar can be used to predict where icebergs can be expected to scour the ocean floor. The risk of iceberg scour is great in much of Canada's offshore, presenting a threat to undersea cables, pipelines, well heads and other structures.

Other products of international caliber developed through Canadian industry-government cooperation include fish

inventory sonars, electronic navigation equipment, side-scan sonar, sonar-sensing data-collecting buoys, an electrically-powered hardrock drill capable of obtaining core samples from seabed 3,000 metres below the water surface, ice-breaking ships, wave recorders, submersibles, and aerial bathymetry technology to name just a few. Currently being developed are technologies to improve navigation through ice, to predict iceberg scour, to measure the effects of offshore drilling on the earthquake zones and the animal life of the Arctic, to use lasers to monitor ice, to lay pipe through ice to transport oil and gas to land (and possibly to bury it beneath the seabed), to determine potential environmental impact of offshore exploitation, and to determine how to regulate the use of materials in the oceans to ensure the safety of people and equipment working offshore.

The advanced-technology ocean equipment industry will be an integral part of offshore development, producing the multitude of specialized equipment and instrumentation essential to any offshore venture. In addition, a range of support industries, the drafting, printing, rope-making, steel-fabricating, metal-stamping, plastics-moulding, food-catering and myriad others will all have an opportunity to support offshore activity, and to grow in proportion to the ocean ventures they will serve. It is the development of advanced technology to work with Canada's unique conditions, however, that will be critical to the establishment of a strong ocean industry sector.

Toward the future

Canada's offshore oil and gas potential has been the undeniable driving force behind the growth of her ocean industries. In the Hibernia discovery, the National Energy Board has accepted 50 million m³ of crude oil reserves as "established" or proven and has projected that additional reserves of up to 100 million m³ will be proven in the future. Estimates of recoverable conventional oil reserves in the Arctic range as high as 8 billion m³, almost five times Britain's proven oil reserves in the North Sea, although as of June 1981, Canada's National Energy Board did not consider any oil reserves "established" in the Arctic. However, marketable natural gas reserves in the Arctic (which includes the Mackenzie Delta, Beaufort Sea and Arctic Islands) have been established at more than 460 billion m³ by the National Energy Board and at more than 580 billion m³ by the Canadian Petroleum Association. The extent of other mineral reserves under Canada's oceans and the potential of cultivating instead of simply harvesting the ocean's fish and plant resources off the east coast are just now being measured. When proven exploitable, they too will offer opportunities for ocean industry companies.

Although Canada has strengths in the fledgling ocean sector, there are problems as well. For example, to date there has been little significant Canadian technical participation in the offshore due to the high level of foreign ownership in Canada's energy sector and to the tendency for multinationals to source equipment and services from their traditional suppliers regardless of the availability of competitive items in the host country, or to depend on foreign-based parent firms for research and development. In fact, in December 1981 the Honourable Herb Gray, Minister of Regional Industrial Expansion (formerly ITC), said that an estimated 50 percent of all equipment and materials being used in offshore and frontier petroleum exploration projects is imported, and that refining and processing projects import 100 percent of their engineering services. A 1981 study, *Industrial Development and the Atlantic Fishery*, found that over 90 percent of Atlantic Canada's electronic fish-finding apparatus (a \$4-million to \$5-million market each year) is imported. The study also forecast a 100 percent increase in the market by 1990. In only four of the 30 fisheries-related product categories listed in the study was Canada a net exporter. The four were communications, navigation instruments and parts, ships and boats, and hoisting machinery and parts. Overall, Canada's fishing industry spends more than \$200 million on equipment each year, much of which is imported. Organizations like the Canadian Ocean Industries Association have expressed hope that government initiatives such as the National Energy Program and the provisions of Bill C-48 "The Canada Oil and Gas Act", which recently was passed by the House of Commons, will help to change this import propensity to the benefit of Canada's ocean industries.

Dependence on imports may be due to the fact that the problems and costs of technology development for the offshore, whether destined for fundamental oceanography, industrial exploitation or environmental protection, are generally too high for any one company to bear, and unacceptably inefficient to duplicate. Cooperation must increasingly be the watchword of a Canadian ocean industry sector.

That the Government of Canada recognizes the importance of moving quickly in developing offshore capability is demonstrated by the designation of oceans as an area of national importance in which university scientists can obtain funding under a program of the Natural Sciences and Engineering Research Council. In addition, according to the Ministry of State for Science and Technology, in 1981-82 the Canadian government is expected to spend \$63 million for oceans science alone, an increase of almost \$7 million over the 1980-81 level. This amount does not take into account ex-

penditures for ocean-related aspects of transportation, environmental protection, food and energy.

Government-industry-university cooperation will continue through the many incentive and support programs that are already in place. But other joint action will likely be taken. For example, in both British Columbia and Nova Scotia, industrial parks to be occupied exclusively by ocean industry firms are being set up beside government ocean research facilities connected with universities. The former Department of Regional Economic Expansion (now part of the Department of Regional Industrial Expansion) estimated that in the Atlantic region alone more than 2,000 scientists, technicians and support personnel are engaged in government, university and commercial projects costing about \$35 million a year.

It has been said that the exploitation of offshore hydrocarbons will be risky. Northern Baffin Bay, for example, is an earthquake zone. Will subsea drilling prompt tremors? Ocean bottom seismometers, when in place, will tell. Ice scour will be a never-ending concern for subsea production facilities, vessels and pipelines. But man-made facilities will not be alone in facing hazards. If the patterns of ice movement are disturbed by "steering" icebergs or by the presence of artificial oil production islands, what will the environmental impact be? How will the oceans respond to the vibration and pollution of greatly increased surface and subsurface traffic?

Because we know relatively little about the offshore and Arctic environments, it is essential that potential impact of resource extraction on the environment be carefully evaluated. One of the groups that will be looking at such impact is the Beaufort Sea Assessment Panel, set up in the early part of 1981. The task is immeasurable, its importance incomparable, the difficulties almost insurmountable. The instruments to measure the effects of offshore intervention have not yet even been conceived, let alone tested. The creation of technologies to probe and correct adverse effects on the environment is another of the challenges, and one of the opportunities, emerging from Canada's offshore.

In frontier oil and gas exploration \$48 billion is expected to be invested by 1990 according to a study published by the Canadian Institute for Economic Policy in 1980. This is an unprecedented opportunity. The oil and gas industry invested only \$646 million between 1967 and 1980 off the east coast, according to the study, and just \$2.8 billion between 1951 and 1980 in the Arctic Islands and the Northwest Territories. Despite her embryonic capabilities, Canada must seize this opportunity to prove herself a world leader in ocean technology and ocean industries. The next decade will be critical for Canada's ocean industries.

An international licensing agreement for Canadian technology

by Jack McFadden

One of the most debated issues related to technological development in Canada is the transfer of technology from foreign-controlled multinationals to Canadian companies. Little attention has been paid, however, to technological transfers in the opposite direction, that is from Canadian-controlled companies to foreign firms. In this article, the author describes one such transfer involving Canada's largest private research and development organization, Bell-Northern Research Limited and one of the world's largest advanced-technology firms, International Business Machines.

Is it good business for a major research and development company to spend \$10 million developing a technology to make it more competitive, and then sell the know-how to its competition? Bell-Northern Research Limited (BNR) thinks that under the right circumstances it can be. The company has recently completed a deal that will ensure that BNR technology is offered to potential competitors throughout the world. The deal is with International Business Machines (IBM) and the technology is a computer-assisted design system used for designing printed circuit boards.

Bell-Northern Research is a highly successful Canadian research and development organization. Its five major installations in Canada employ more than 2300 people. Two other major installations in the USA have 560 employees.

BNR is 70-percent-owned by Northern Telecom Limited, the parent company, and 30-percent-owned by Bell Canada. Northern Telecom, 55-percent-owned by Bell Canada, is a Canadian manufacturing company with 32,000 employees, that produces large telecommunications switches and other electronic communications products.

BNR was established in 1971 to support Northern Telecom and Bell Canada in design, development research, long-range planning and systems engineering in all fields of communications. It is not required to show a profit and indeed any profits that might be generated by its efforts on behalf of Northern Telecom are lost in the sales figures of the parent company's own products. However, BNR does have its own relatively small market-

ing division. Its activities before the recent technology sales were limited to selling BNR's research and development capability to customers other than Northern Telecom and Bell Canada, about \$7 million worth of business each year.

BNR's prime interest in research and development contracts is in the knowledge it gains. The indirect value of what it learns from doing research for others is considered of potentially greater benefit than the revenue. The attitude toward the sale of its technology is just the opposite; licensing was added with the purpose of gaining both revenue and knowledge, but with the emphasis on revenue.

In part, it was the ready-made marketing structure of IBM that made the US company so attractive to BNR. IBM's Data Processing Division, with headquarters in White Plains, New York, has a large highly organized marketing capability extending around the world. A pioneer in computer and office equipment technology, IBM is still very much a leader in the field. Along with the computer hardware, it sells applications programs which, as the name implies, are ready-made programs that apply the computer's special qualities to specific requirements such as in design or manufacturing. It is a BNR computer-assisted design (CAD) system that IBM will market as a software applications package.

The technology that BNR is selling is a set of computer programs (software packages) used in the design and development of printed circuit boards (PCB). The PCB is the base and provides all the interconnections for scores of integrated circuits and other electronic components used in

virtually all modern electronic equipment.

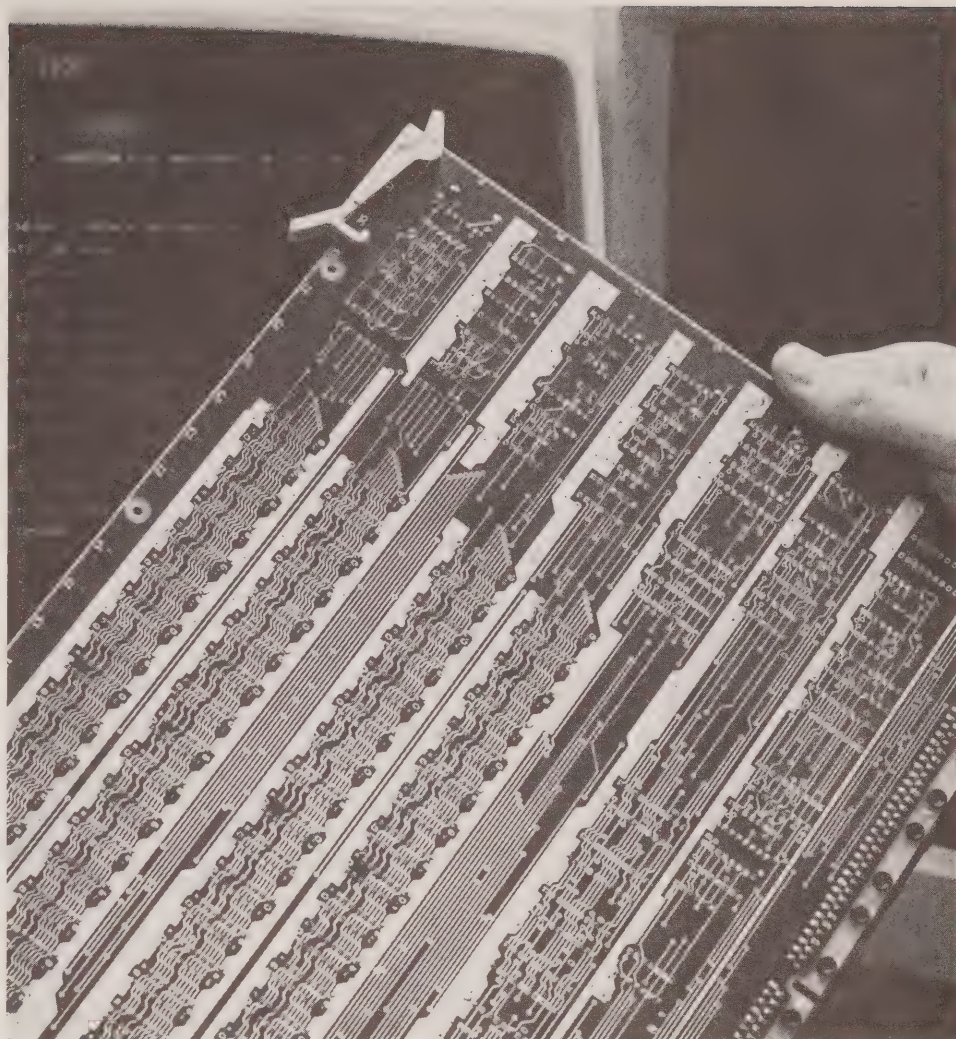
The interconnections on each board can number in the thousands. They consist of metallized pathways of precise lengths carefully separated from each other. The length of each path is critical because it affects the time it takes each electrical pulse to leave one device and arrive at another. Pulses must arrive at just the right time through each of these paths to preserve the timing relationships. Working to these rules results in a complexity of pathways that would make the most difficult maze seem child's play by comparison.

But there is yet another set of rules the designer must heed when designing the printed circuit board: the practical limitations of manufacturing. Making boards like these is not easy. In some manufacturing environments, rejection rates can be as high as 30 out of 100, and the cost of correcting a fault at this stage can be 100 times greater than correcting it during the design stage. The greatest challenge, therefore, is to design the boards so that they can be reliably manufactured. This is where the real value of the BNR technology lies; their CAD system assists in designing PCBs so that this expensively high rejection and correction rate is greatly reduced.

The idea of computer-assisted design was applied in BNR as early as 1973, when the Ottawa installation began developing bits and pieces of such a system. Development of CAD on a large scale, however, is expensive. It was not until 1977 that a project came along of the size needed to support the development of a comprehensive circuit board CAD system.

The project involved the design of a new series of large telecommunications switching units called the DMS-100. To be manufactured by Northern Telecom, the DMS-100 would require the design and development of scores of new circuit boards. To retain a competitive edge in this field, BNR had to find ways to reduce the design and manufacturing time to get the DMS-100 on the market in the shortest time possible. So, in parallel with the development of DMS-100, BNR also developed COPES, Customer Optimized Product Engineering System, which was designed to work with a Digital Equipment Company computer. The acronym was appropriate: the aim of the system was to help the designer of a circuit board cope with all the hundreds of possible interconnections on each board while working within the limitations of design and "manufacturability".

According to Don Innes, BNR manager for Circuit Board Design Development, "The cheapest point to find and correct any error is during the design stage." He might have added that if the design can be done without building a physical model or touching a component, so much the better!



The computer-assisted design system developed by Bell-Northern Research makes the design of printed circuit boards more accurate and less costly.

COPES allowed the designer to design the board in the computer, capturing the design information as it developed, and automatically being reminded of the rules that applied to increasing the manufacturability of the board. Testing could also be done by a computer simulation of the board's design and the design revised as necessary. Finally the information would be captured more permanently in a data storage system. By 1979, the use of COPES as a design tool had extended to Northern Telecom where it controlled the design changes being made to the DMS-100 product line.

Although justified by the circuit board design application for the DMS-100 alone, BNR naturally looked for other possible uses for the complete COPES and its modular parts, most of which can be used in stand-alone applications. The digital logic simulation module, FLOGIC, found a valuable application in the BNR division that designs customized integrated circuits. These tiny devices contain the circuitry for hundreds of thousands of transistors and present problems as complex as those of any circuit board. Don Innes said he believes that with further

development, the complete system in Ottawa will eventually provide direct input to numerically controlled machines in Northern Telecom's plant near Toronto on a computer-to-computer link.

The possibility of licensing other companies to use the technology was an early consideration. Northern Telecom had already made highly successful inroads into the tough European market by licensing its manufacturing technology.

BNR decided to license the right to use its COPES, not only for the direct revenue it would produce, but also for the feedback of information that would result from the external user's experience with the system. As fully committed as it was, however, the research company decided that it could offer COPES in whole or in part only on an "as is" basis. That is, it could not offer to modify the system or provide any other support to the customer.

Despite this restriction, during 1979 and 1980 nine right-to-use licensing agreements for the Circuit Pack Subsystem (CPS) of COPES were made with companies in Europe, the USA and Canada as well as two agreements permitting the

user to sub-license the CPS. In 1979 the rights to use the FLOGIC module were licensed to one company in the USA and to two companies in Japan.

Among those who approached BNR in 1978 was IBM. However, IBM wanted the system modified to be compatible with its own computers and wanted additional support that BNR was not prepared to supply at that time. By 1980 the Canadian company came to accept that if it wanted to widen its potential market, it would have to offer modification and support of the system. BNR officials readily admit that their decision was influenced by the potential for valuable feedback of technological information from a company such as IBM, although they insist this was secondary to making a healthy profit from an exciting business opportunity.

The deal with IBM was struck in 1980. It marked the first time that an agreement was reached to license the complete COPES system. Under its terms, IBM is licensed to use the system within its own organization and to sub-license the right to use the technology to other buyers. By 1981, COPES was made compatible with IBM computers and was renamed the Circuit Board Design System (CBDS). It was introduced to the world at large and demonstrated in New York City in June 1981 at an international conference of circuit board manufacturers, where IBM offered the CBDS software applications package and its computer hardware as a one-stop shopping arrangement.

The deal calls for IBM to do the marketing, administration, and all the "front-end" work. BNR supplies the documentation, some of the training and error correction (a second-line maintenance task). The cost of the BNR support is offset by BNR's share of the IBM royalty.

An interesting point is that the right to market the design system technology is not exclusive to IBM since other companies in Europe still have the right to sub-license parts of the system. However, IBM offers the only fully supported complete system.

The evaluation and the education phases in the IBM-compatible system were completed in the fall of 1981. Satisfied that its own people have the necessary knowledge, IBM is now preparing the system for its internal use and for shipping to other users. BNR is already discussing with IBM several enhancements to the system in what could be a two-year development program.

IBM offers the CBDS as three interlocking subsystems: the Circuit Pack System, the Design Verification System and the Data Storage System. The first is being presented as the key application while the other two are listed as options. Monthly charges for the complete CBDS are in the area of \$4,000 US. Of course, this does not include the charges for the

IBM System/370 computer which is the type of machine designated to be used with CBDS.

BNR has not disclosed what its share of the \$4,000 per month per customer is. But it is obvious that if IBM is successful, there is a financial benefit to BNR in addition to the technology gains.

However, Don Innes and Ray Fortune (BNR Corporate Director of Marketing and Program Services) said that the gains made through technology feedback have already been of significant value to BNR. As Mr. Innes put it, "In our dialogue with IBM on further development of the system, they have to divulge to some extent what their own thinking and the thinking of their clients is in terms of technology."

Mr. Innes also said that the resulting exposure to IBM's suppliers is another beneficial spin-off. Through the IBM connection, BNR can exert more influence on these companies to think along the lines of future BNR requirements, the development of special test equipment for a proposed BNR project, for example.

There is no doubt that technology feedback is a two-way street. But so far BNR is confident that it can sell its latest technology yet still keep the competitive edge because of the time factor. BNR, of course, is already applying its own technology. It may take up to two years for a licensee to completely install and put the system into full use.

Ray Fortune emphasized that BNR does not have the last word on whether its software technology will be sold. Since the application of its software technology is directly related to the success of Northern Telecom products, and since Northern

Telecom provides the funding for most of the development, Northern Telecom has a direct say in the release of software technology. Both companies are constantly re-assessing the advisability of selling their technology, particularly the BNR technology which helps to keep Northern Telecom products so competitive.

Northern Telecom will evaluate each proposed future transaction on its individual merits. Some agreements may prove advantageous, but it must first be shown that there would be no detrimental effects. Despite its caution, Northern Telecom has set up an in-house venture-capital group that will probably continue to give technological support to the companies in which it decides to invest, even if those companies threaten to become competitors.

Ironically, it may be a shortage of manpower rather than competition that restricts BNR's activities. As is the case throughout advanced-technology industries, shortages of skilled personnel impose a severe growth limitation. BNR's resources can barely keep up to the current Bell System's demands. It has become increasingly difficult, therefore, under the support concept of marketing, to divert BNR personnel resources from their primary role of research and development to support the technology once it is sold.

The IBM deal is not necessarily one of a kind. However, unless BNR can find the resources to support the CAD/CAM technology it is willing to sell, it may be that, despite all their advantages, deals of this size will always be the exception to the rule.

Some applications and benefits of CAD/CAM technology

In addition to circuit board design such as that described in this article, computer-assisted design and manufacturing (CAD/CAM) technology can be applied to a wide range of operations in any industry. According to a report by the CAD/CAM Technology Advancement Council, set up by the Government of Canada in 1978, CAD/CAM applications can include customer order handling; scheduling, inventory control and material requirements planning; control of manufacturing processes such as pattern and fabric cutting, flow soldering, spray painting, and automated assembly; automated material handling; automated inspection of machined parts, testing of electronic components and pattern recognition; coordination of material and information in packaging, weighing, and labelling; and automated label reading, and package sorting and routing.

The report also suggested that the use of CAD/CAM technology, particularly in manufacturing, may result in economic benefits from increased and more efficient use of capital equipment; shorter delivery time; reduced work-in-progress inventory; more disciplined design and manufacture; greater design creativity through computer graphics; reduced costs through design optimization; improved use of materials; reduced waste by minimizing error; improved quality control through enhanced machining accuracy, repeatability, and automated testing; improved coordination of the manufacturing process from design to accounting; increased workforce productivity; and automation of short production runs.

Government assistance for small business

by Robert D. Irvine

Increasing attention is being paid to the major role played by small businesses in fostering innovation, employment and regional development in Canada. The Government of Canada has a number of business assistance programs of interest to both small entrepreneurs in Canada and foreign investors.

The importance of the small business community in the Canadian economy is obvious. Canada's one million small businesses account for 97 percent of all firms in the country. They provide 42 percent of private sector employment, and their products and services constitute 30 percent of the contribution of business to Canada's GNP.

The Canadian government carries out a range of activities to help the small business community in Canada. Many are long-standing efforts such as the operations of the Federal Business Development Bank (established in 1944 as the Industrial Development Bank) while others, such as the Business Opportunities Sourcing System, are relatively new. Together they ensure a positive climate for both the small entrepreneur already established in Canada and the foreign investor considering a joint venture or other arrangement. Canada was a pioneer among western nations with the appointment in 1976 of a Minister of State for Small Business. This was followed soon by the establishment of a Small Business Secretariat in the Department of Regional Industrial Expansion (formerly Industry, Trade and Commerce); the publication in 1977 of a federal strategy for small business; and the creation of the Office for the Reduction of Paperburden (since amalgamated with the Small Business Secretariat) in 1978.

The government's "arsenal" of financial assistance measures for small- and medium-sized firms has also increased in recent years. Many measures involved the tax system. Perhaps most notable is the lower corporate income tax rate for small business. The rate, which is less than half that for large firms, represents an annual cost of \$1.5 billion in foregone revenues to the Government of Canada. The rate compares very favourably with those of other western countries which, in some cases, provide no special tax treatment for smaller firms.

Another tax incentive established in the 1970s was the special investment tax credit on research and development (R&D) expenditures by small business. Through this incentive, a Canadian-controlled private corporation that qualifies for the small business tax rate receives an investment tax credit of 25 percent on all its R&D expenditures. As in other countries, small businesses are playing a critical role in the advanced-technology sector in Canada. This tax credit is designed to assist them.

Other tax features which were established during the same period included:

- the deferral of up to \$200,000 of capital gains on transfers of small businesses from parents to children and grandchildren;
- the exemption from federal sales tax of small business manufacturers with annual sales of less than \$50,000;
- arrangements whereby owners of unincorporated businesses may pay tax-deductible salaries to their spouses; and
- permission to venture capital companies investing in the shares of small- and medium-sized businesses to elect to have their earnings taxed as capital gains instead of as ordinary income.

These other existing incentives represent a further \$1 billion in federal tax expenditures (revenue which the government has chosen to forego) for small business each year. They are in addition to the many general tax incentives and other financial assistance available to firms, both large and small, such as accelerated write-offs, investment tax credits, and direct grants.

The 1981 budget of the Canadian government built on these existing measures. The lower corporate tax rate is one example. The budget raised the annual taxable income limit for the small business tax rate from \$150,000 to \$200,000. The cumulative limit was increased from \$750,000 to \$1 million. In terms of specific benefits to an individual entrepreneur, these adjustments mean another \$52,500 of potential tax saving to a small business.

The Small Business Bond was also adjusted in the 1981 budget. Formerly called the Small Business Development Bond (or SBDB for short), the measure was re-titled to reflect its new focus on those in greatest need. Since the Small Business Development Bond was first established in 1979, over \$2 billion in financing has been made available by private financial institutions to over 10,000 small businesses across Canada.

A bond is negotiated directly between a borrower and a private lender, without government involvement or special paperwork. Interest paid on a bond is treated as a dividend, so banks and other lenders do not incur a tax liability on the interest received from a loan under the program. For this reason, a small business can obtain substantial savings on its interest costs.

The bond program was scheduled to expire at the end of 1981, but was ex-

tended in the recent budget to December 31, 1982 under a slightly different format. The measure now concentrates on firms temporarily in financial difficulty and now also covers unincorporated small businesses including farmers and fishermen.

With its new focus, the Small Business Bond is still a help to small entrepreneurs. Indeed, the Department of Finance has forecast that extension of the bond program will entail approximately \$100 million in tax expenditures through fiscal year 1985-86.

To help meet the Canadian government's revenue objective, the November 1981 budget extended the current corporate surtax until the end of 1983. However, small businesses were exempted from the surtax on that portion of their income eligible for the lower corporate tax rate. This exemption will result in an estimated total tax saving of \$100 million for small businesses in Canada through 1983.

Another boost to small business from the budget was the small manufacturers rule. Under the tax rules existing before the budget, the federal corporate tax rate of 15 percent for a small business was reduced to 10 percent on income from manufacturing and processing. As a result of the budget, small businesses primarily in manufacturing no longer have to separate their manufacturing income from their other income to use the lower manufacturers' tax rate.

The 1981 budget benefited business, both small and large, in a wider sense through its effort to reduce the government's deficit and substantially curtail its borrowing requirements. Under the fiscal plan outlined by the Minister of Finance, the majority of government expenditures will continue to be held to a rate of growth less than that of the GNP.

Incentives available through the tax system are only part of the effort to provide financial assistance to the small business community. For example, the Federal Business Development Bank, through its 103 offices across Canada, offers financing to small- and medium-sized firms by means of loans, loan guarantees, equity financing or a combination of these. The bank currently has over \$2 billion in outstanding loans with 40,000 customers. It also has over \$40 million in equity investments with about 150 investment customers.

Financial assistance is also provided through the Small Business Loans Program of the Department of Regional Industrial Expansion. Through it, small businesses can obtain loans guaranteed by the Government of Canada from private lenders at interest rates set at 1 percent over the prime lending rates of the chartered banks. As of the beginning of 1982, about 98,500 loans totalling \$1.9 billion had been made to small businesses under the program.

The Enterprise Development Program (also administered by Regional Industrial Expansion) focuses on high potential small- and medium-sized firms that are prepared to undertake relatively high-risk but viable projects which promise attractive rates of return. EDP offers contributions and loan insurance for product and process development and business restructuring.

The Government of Canada has a host of programs which provide aid to small businesses in ways other than through financial assistance. Many of them are specifically designed to help small entrepreneurs respond to the rapid pace of technical change and an increasingly interrelated world economy.

One example of such a program is the Technical Information Service (TIS) of the National Research Council. TIS provides manufacturers with the most direct access possible to current technology for the solution of industrial problems. Its services are of particular use to firms that have few technical resources.

The service helps companies adapt existing scientific and technological knowledge to their own specific operations. This includes helping them solve technical problems, improve production operations, increase productivity, develop new products and markets, reduce costs and increase profits.

A distinctive feature of TIS is its field

service. TIS engineers and scientists visit their clients at their plants. The field service assists clients to identify and solve their technical problems, helps them to enhance their technological capabilities and performance and makes them aware of the availability and value of technical information. The field services are supported by a group of specialists at the TIS national office in Ottawa.

Another non-financial assistance program is BOSS, the Business Opportunities Sourcing System of the Department of Regional Industrial Expansion. A computerized bank of data on Canadian companies, their products and the markets they serve, BOSS takes information from individual manufacturers and international trading companies across Canada and incorporates it into a system that quickly and efficiently identifies Canadian-based suppliers for international and domestic markets. Some 10,000 firms have already provided information to BOSS. Additional participants are being sought to make BOSS an even more powerful tool for the private sector.

These are just a few examples of the many measures designed by the Government of Canada to help small entrepreneurs. The various provincial governments also offer a range of programs for small firms. Together, they truly represent big help for small business.

For more information . . .

Subject	Contact
All Canadian government business information programs	Business Information Centre, 34/2 Department of Regional Industrial Expansion Ottawa, Canada K1A 0H5
Small Businesses Loans Program	Small Businesses Loans Administration, 41/A Department of Regional Industrial Expansion Ottawa, Canada K1A 0H5
Enterprise Development Program	Programs Branch, 41/A Department of Regional Industrial Expansion Ottawa, Canada K1A 0H5
Business Opportunities Sourcing System	Corporate Systems Branch, 97/1 Department of Regional Industrial Expansion Ottawa, Canada K1A 0H5
Government policies and programs for small business	Small Business Secretariat, 63 Department of Regional Industrial Expansion Ottawa, Canada K1A 0H5
Technical Information Service and other science-related assistance programs	Industry Development Office National Research Council Montreal Road, M-55 Ottawa, Canada K1A 0S3
Small Business Bond Program	Legislation Branch Revenue Canada—Taxation Ottawa, Canada K1A 0L8

Information is also available from the Government of Canada offices located in every major centre in Canada, and from Canadian posts abroad.

Saskatchewan's economy, on the upswing

by Edward Greenspon

After a long run as one of Canada's poorer provinces, Saskatchewan has emerged in recent years as one of the stronger economies in the country. The province led all 10 in real economic growth last year, helping to dispel the persistent myth that Saskatchewan is a backward place totally reliant on the vagaries of a vulnerable grain crop.

The province enjoyed a 4.9 percent compound annual rate of growth in the 1970s compared with 3.9 percent for Canada as a whole according to Government of Saskatchewan figures. Mining, construction, finance, insurance and real estate all enjoyed compound annual growth rates in excess of 17 percent during the decade. Investment, which has been relatively immune to interest rates because of the number of large projects with long life expectancies, continued to escalate in 1981, growing by 25 percent to \$5.4 billion. Farm cash receipts also increased by 25 percent to \$4 billion in 1981, following a poor harvest in 1980.

The mining sector outstripped all others in growth during the past decade. Saskatchewan has 40 percent of world potash reserves, a 3,000-year world supply at current consumption rates. It is Canada's second largest petroleum producer, though a distant second, and an increasingly important uranium producer. In terms of quality, Saskatchewan is endowed with the best possible uranium and potash, and poor oil and coal. Saskatchewan is the world's largest producer of sodium sulphate and produces small quantities of salt, copper, zinc, gold, silver, cadmium, selenium and tellurium. The province took in \$727.2 million in mineral revenues in 1980, all but \$25 million from petroleum and potash. This figure in 1981 is expected to reach \$1 billion.

Between 1952 and 1970, Saskatchewan experienced wide swings in its growth figures. In eight of those years there was a decrease. Five times growth fluctuated by more than 18 percent from one year to the next as economic performance slavishly followed the yield of the grain

crop. Today, the province has experienced nine uninterrupted years of positive growth. But the huge influence retained by agriculture was amply illustrated by the modest 0.9 percent growth in 1980, a partial drought year. In contrast, in 1981, with the second largest crop in the province's history, Saskatchewan's economy grew by 8 percent according to the province's figures, by 5.3 percent, according to the Conference Board of Canada. Either way, it was the best in the country.

The Saskatchewan economy began its advance in the 1970s. The gross domestic product rose to \$12.8 billion in 1980 from \$3 billion in 1970. Personal income increased fourfold to \$8.7 billion in 1980. The value of exports rose sharply to \$6.9 billion from \$1.2 billion. With a population holding steady at just under one million people, the Saskatchewan economy is dependent on international markets to consume its production. But instead of just riding the grain market cycles as in the past, Saskatchewan has spread the risk of reliance on world commodity markets onto several export cycles.

The decade of growth has been orchestrated by a provincial government that intervenes heavily in the economy. The province has a tradition of agrarian populism that today is expressed largely in the strong presence of cooperatives. The biggest company in the province is the Saskatchewan Wheat Pool, with sales approaching \$2 billion a year. Owned by 70,000 farmer-members, the pool handles grain, sells insurance, manufactures fertilizer, mines phosphate and processes margarine, among other things. Federated Cooperatives Ltd. is a retail cooperative that

Mr. Greenspon, reporter with the Leader-Post in Regina, Saskatchewan until early this year, now writes for the Financial Post in Edmonton, Alberta.

also has more than \$1 billion in annual sales. In fact, of the seven Saskatchewan-based companies listed in the Financial Post's leading 400 by sales, two are cooperatives, three are wholly-owned by the provincial government and the other two are publicly traded companies with substantial provincial government ownership.

Through the Crown Investments Corporation (CIC), the government owns 17 commercial companies and has investments in other businesses operating in Saskatchewan. CIC has \$4.3 billion in assets. The Crown corporations are an integral part of the government's economic development plans. The Saskatchewan Mining Development Corp., for instance, has the right to buy half of any uranium exploration venture in the province. Saskatchewan Telecommunications has been granted legislative monopolies on certain aspects of new communications technologies. The Potash Corporation of Saskatchewan, the protagonist in a controversial government move into the industry in the mid-1970s, today accounts for more than 40 percent of Saskatchewan potash production. The Crown corporations are engaged in numerous joint ventures with private industry, particularly in mining.

Saskatchewan's diversification has been limited to the primary sector, which accounts for about one-third of the gross domestic product. Manufacturing is still a relatively small sector of the provincial economy, comprising just 6 percent of

gross domestic product. The growth of the primary sector has helped stimulate the service sector. Finance, insurance, real estate and services accounted for 29.3 percent of 1980 gross domestic product. (See table.) The nature of the economy has helped Saskatchewan avoid the high unemployment rates experienced by most of the country.

Saskatchewan is putting away its newfound wealth in a special account, known as the heritage fund, which has assets of more than \$1 billion. About \$1 billion, from provincial resource revenues, is to be channeled through the heritage fund in 1981-82. A majority of the funds will end up in the provincial government's regular accounts. The money left in the heritage fund will then be allocated either as incentives to the oil industry, for capital projects that will not earn any return, or to the Crown corporations in the form of loans or equity. The fund planned loans of \$239 million to the Crown corporations in 1981-82, covering 30 percent of their external financing needs. The heritage fund also lends money to the province's regular account to reduce the need for short-term borrowings.

The provincial government and the Crown Investments Corporation, together with the federal government and the private sector, have long-term plans to develop more resource processing in the province in the 1980s. The processing of by-products from potash and sodium sulphate production is one area being ex-

plored. Among others are uranium refining, heavy oil upgrading, further oil refining, petrochemical manufacturing and fertilizer manufacturing.

Agriculture

Agriculture is still the backbone of the Saskatchewan economy, directly employing 20 percent of the work force and accounting for 17.9 percent of gross domestic product in 1980, a poor crop year. Agriculture's share of the economy has fluctuated between 16.8 percent and 30 percent in the last decade. There are 69,000 farms in Saskatchewan, averaging 970 acres (about 392.5 ha) in size. Saskatchewan's dryland farms produce about half the country's grain. Non-residents of Saskatchewan are not allowed to buy more than 10 acres (about 4 ha) of farm land. The 1981 grain crop was Saskatchewan's second best ever, one million tonnes below 1976's record 20 million tonne production, but commodity prices were lower than expected. The province produces six grains and oilseeds — wheat, barley, oats, rye, canola and flax.

Crops accounted for 78 percent of farm cash receipts in 1980, with wheat responsible for 62.9 percent of the crop total. The other 22 percent was generated by livestock production, led by cattle. Wheat, oats and rye are marketed exclusively through the Canadian Wheat Board. Farmers have the option of marketing feed grains through either the board or private grain companies. The

Saskatchewan Gross Domestic Product at Factor Cost of Industry
(\$ million)

	1975		1976		1977		1978		1979		1980	
Agriculture	\$1,756	26.4%	\$1,701	23.1%	\$1,347	17.6%	\$1,630	18.5%	\$1,680	16.8%	\$2,079	17.9%
Forestry	18	0.3	16	0.2	17	0.2	18	0.2	22	0.2	23	0.2
Mining	437	6.6	475	6.5	621	8.1	757	8.6	964	9.7	1,180	10.2
Construction	401	6.0	493	6.7	541	7.1	498	5.6	618	6.2	657	5.7
Manufacturing	416	6.3	442	6.0	454	5.9	525	5.9	624	6.3	721	6.2
Transportation, communications and storage	484	7.3	568	7.7	628	8.2	734	8.3	859	8.6	958	8.3
Utilities	139	2.1	160	2.2	173	2.3	190	2.2	243	2.4	256	2.2
Trade	699	10.5	808	11.0	799	10.4	893	10.1	1,037	10.4	1,166	10.1
Finance, insurance and real estate	745	11.2	892	12.1	1,015	13.3	1,312	14.9	1,315	13.2	1,509	13.0
Services	1,018	15.3	1,172	15.9	1,309	17.1	1,456	16.5	1,662	16.7	1,891	16.3
Public administration	534	8.0	625	8.5	747	9.8	819	9.3	954	9.6	1,149	9.9
GROSS DOMESTIC PRODUCT AT FACTOR COST	\$6,646	100.0%	\$7,353	100.0%	\$7,651	100.0%	\$8,832	100.0%	\$9,978	100.0%	11,589	100.0%

Percentages have been rounded

Source: Saskatchewan Provincial Economic Accounts, May 1981

board has set an export target of 26 million tonnes for the crop year ending July 31, 1982, 13 percent better than the 1979-80 record year.

Net farm income, including inventories, in 1981 is expected to reach \$1.5 billion on farm cash receipts of \$4 billion, although the farm community considers this forecast optimistic. Payments from various price and income stabilization programs are expected to account for about \$1 billion, or 25 percent, of this amount. Both the Canadian and Saskatchewan governments have introduced income-stabilization programs, such as crop insurance. The newest is a provincial beef stabilization program, designed to assist the troubled cattle sector.

Agriculture in Saskatchewan is benefiting from record international grain trading. In order just to keep pace with Canada's traditional market share, the Wheat Board is projecting exports of Canadian grain to reach 30 million tonnes by 1985 and 36 million tonnes by 1990, far better than has ever before been achieved. Few farmers and academics believe the goals will be reached, at least not the 1985 target. But farmers, stung by the 1980 partial grain embargo of the Soviet Union, were buoyed in 1981 by the signing of a record, five-year, 25-million-tonne contract with the Soviet Union. Purchases in the first year exceeded the minimum set out in the agreement.

The two major constraints to achieving the export targets are the ability of farmers to grow that much grain and the ability of the transportation and handling system to get it to port from the landlocked province. Agricultural experts generally say that physically the export goals are feasible, but the necessary adjustments will take some time. There are political hurdles to overcome as well, the most significant of which is rail transportation policy.

Despite the impressive addition of rolling stock in the past several years, the rail system is still fragile at the best of times. A work slowdown at one rail point in British Columbia during the winter of 1980-81 significantly curtailed the movement of prairie grain. The damaging of a bridge in Vancouver by a Japanese freighter in 1979 isolated some port facilities from the mainland, and exports fell below target levels.

Aside from the host of things that can go wrong, however, the movement of grain is endangered by limited capacity on main rail lines, which will not be able to satisfy demand by mid-decade. Some upgrading projects have been initiated, but the railways — one privately owned and the other a commercial venture of the Canadian government — say they are not earning enough money from grain transportation to justify the \$7.7 billion cost of doing all the work required. The railways say they lost \$250 million in 1981 hauling grain. The railways claim

that the cost of moving grain is actually five times what farmers pay under a statutory rate structure, known as the Crow's Nest Pass freight rate, established in 1897 and unchanged since 1925. This so-called Crow rate of half-a-cent per ton mile means farmers can ship a bushel of grain to port for less than the cost of a postage stamp. The Crow rate has also been blamed for retarding the development of agricultural secondary processing on the Prairies because raw goods can be transported for less than processed goods. The rail capacity problem has implications for other Saskatchewan bulk commodities, which must move to tidewater before going overseas.

Oil

Saskatchewan produced 57.9 million barrels of crude oil in 1980. Production peaked in 1966 and the province is turning to its less conventional oil reserves. The province sees its future in heavy oil, which is difficult to recover, hard to transport, and expensive to refine. There are an estimated 20 to 30 billion barrels (about 3 to 5 billion m³) trapped in sandy formations in the 31,000 km² area shown on the map around Lloydminster, but recovery rates for heavy oil average less than 10 percent, even using waterflood. But with enhanced recovery techniques such as steam injection or an underground fire to thin the oil and pressure it upward, oil companies and the province are hoping to increase the recovery rate to as much as 30 percent. Twelve experimental enhanced recovery projects, costing \$25 million to \$30 million each, currently are operating or planned.

Heavy oil is used for asphalt or exported to certain American refineries capable of handling the troublesome crude. But a consortium of three private and two Crown oil companies is studying the feasibility of building a 40,000 to 100,000 barrel-a-day (about 6500 m³ to 16,000 m³ per day) heavy-oil-upgrading plant in Saskatchewan to bring the heavy oil up to refinable quality. The cost of the project is expected to be between \$1 billion and \$1.75 billion, the largest single undertaking in the province's history. The consortium says the plant will be built preferably near Moose Jaw or else near North Battleford. While the plant will employ up to 3,000 people at peak construction and about 300 people full-time, far more work will be generated in the oil fields designated to supply the plant.

The economics of heavy oil production have not been firmly established because the province is adjusting its royalty and tax structure regarding low-producing oil wells and wells using enhanced recovery techniques. The provincial government has supported the idea of an upgrader

and is expected to help ease its way. The consortium is anxious to have the project started by 1983 and completed by 1986 because two scheduled multi-billion-dollar oil projects in Alberta may cause manpower shortages in Saskatchewan. However, an environmental impact assessment must be conducted before the consortium can obtain provincial government permission to proceed with the upgrader.

Saskatchewan recently entered into a five-year oil pricing agreement with the Canadian government which will bring the province \$5.8 billion in revenue. The Government of Canada will get \$3.5 billion and the industry will be left with \$6.1 billion. Oil production in the first seven months of 1981, before the agreement, dropped 21 percent, drilling was down 40 percent, and revenue from rights sales fell to \$37.3 million from \$77.6 million in 1980.

The industry in general has reacted favourably to the Canada-Saskatchewan agreement, however, and is awaiting the details of the province's revised royalty structure. The sale of Saskatchewan crude oil outside the province was \$1.37 billion in 1980.

Saskatchewan also has modest reserves of natural gas — 38.4 billion cubic metres or about 2 percent of established Canadian reserves. The province imports 64 percent of its natural gas from Alberta, but the government is working on policies to promote more natural gas exploration, with the intention of using the gas for resource and industrial projects. Saskatchewan has also announced plans to build a pilot ethanol plant that would initially use barley as a feedstock but would later switch to wood when the technology is proven.

Uranium

Northern Saskatchewan has some of the world's richest uranium deposits. There are currently three mines operating. The largely French-owned Amok Ltd. mine at Cluff Lake started production in 1980. It represents the new generation of Saskatchewan uranium mines with rich deposits and low production costs from open-pit mining. Cluff Lake yielded a phenomenal grade of 7 percent uranium on its first ore body. (Average world grade is 0.15 percent uranium content.) Veins mined subsequently will not be as rich, but they will be far above the traditional uranium grade levels. The second of these northern Saskatchewan super-deposits is at the Key Lake mining project. One-third owned by the German company Uranerz Canada, it will be the most expensive economic development in northern Saskatchewan history, costing about \$500 million by the time the mine and mill start producing in 1984. The mine is expected to produce 12 million

SASKATCHEWAN RESOURCE DEVELOPMENT



LEGEND

● Uranium Mine

▨ Potash

△ Power Station

□ Coal Mine

■ Coal Deposits

■ Conventional and Medium Crude Deposits

■ Heavy Oil Deposits

■ Gas Fields

⊖ Potash Mine

pounds of uranium a year during a project life of 15 to 20 years. Average grade is estimated to be 2.5 percent.

Saskatchewan Mining and Development Corp. has a 20-percent interest in the Cluff Lake development and a 50-percent interest in the Key Lake venture. The Crown corporation has the right to purchase half the equity in any uranium exploration project in the province. SMDC now is participating in about 230 uranium ventures in Saskatchewan.

The uranium industry is not entirely without problems as there is a significant amount of opposition in the province to developing this resource. The province has also not been immune to the effects of a poor uranium market in the last two years. The spot market price for uranium has fallen to about \$27 from \$50 since the summer of 1979. During one week in December, Esso Minerals Canada suspended a major uranium development in Saskatchewan because of the markets, and Eldorado Nuclear Ltd. announced it will close Canada's oldest uranium mine, at Uranium City, on June 30, 1982.

The government is confident, however that the uranium market will recover late in the decade. Independent analysts say the recovery will take longer and stockpiling will be the order of the day until then. Saskatchewan exported \$232 million in uranium in 1980, at an average price per pound of \$38. Saskatchewan currently accounts for 9.5 percent of world production capacity of uranium. The province expects to increase this to 15 percent by 1987. In some ways, low prices work to Saskatchewan's advantage. Unlike many uranium mines, the ones in northern Saskatchewan can function profitably in a depressed market.

Potash

Potash has been a major success story in a province full of resource promise. The industry was in a decline when the government made its move into potash in 1976. The province spent a total of \$418 million to buy three private potash mines, a share of a fourth and reserves in the eastern part of the province. In 1980, potash earned \$1.01 billion export dollars, up from \$109 million 10 years earlier. The government-owned Potash Corporation of Saskatchewan showed a profit of \$167.5 million. PCS today owns three mines outright and has interest in three others. There are also four wholly private potash mines. Unfortunately for Saskatchewan, other provinces and countries have seen the merits of potash production, too, and there will be increased competition for the market in coming years. Prices for potash rose from \$70 a ton (of K₂O equivalent) in 1978, to \$93 in 1979, to \$129 in 1980, and to \$142 in 1981. The potash

market slackened somewhat in 1981, due in part to the world recession and a stronger Canadian dollar relative to currencies outside North America. But the long-term outlook for the market is considered favourable, particularly in light of the growing demand for food and the need for fertilizer to meet this demand. PCS withdrew from an offshore exporting agency in 1981 and will take care of all its own sales from now on.

PCS has announced \$2.5 billion in expansion plans for this decade. The company plans to triple production to 12.5 million tons (about 11 million tonnes) a year in the next 10 years. The private potash companies plan to increase their capacity by one million tons (almost one million tonnes) a year in the same period at a cost of \$83 million. The only company that will not be expanding is Central Canada Potash at Colonsay. The expansion plans of the company, owned by the mining giant Noranda, were rejected, according to the provincial government, because of the softening in the world market.

Coal and electricity

Saskatchewan has 7.6 billion tonnes of reserves of low-grade brown lignite coal, mostly along the U.S. border. Lignite is the largest single energy resource in the province, but it is relatively unexploited. Current coal production is only 6 million tonnes a year. High moisture and low energy content make lignite less than ideal for industry, and there appears to be little export market for the coal at present. But, domestically, the public utility Saskatchewan Power Corp. is using lignite for thermal-powered electrical generation of 1,390 megawatts of electricity, 70 percent of the province's needs. Coal usage by SPC is expected to double to 12 million tonnes by century-end, despite some environmental opposition to the resource. Coal is mined both privately and by SPC. The value of coal sales in 1980 was \$29.7 million, including sales to Ontario.

The location of the coal reserves, in the water-poor southern regions of the province has posed some difficulty in more fully exploiting this resource for electrical generation. SPC is investigating the possibility of using air-cooled rather than water-cooled systems to convert the coal to electricity. The Interprovincial Steel and Pipeline Corporation is studying the feasibility of using the coal in a future direct iron ore reduction process. SPC and Saskatchewan Oil and Gas Corp., another Crown corporation, are also studying the feasibility of ultimately using the coal resource in the making of synthetic fuels.

SPC estimates that overall electrical demand will grow 4.8 percent a year over the next 10 years. Construction is underway on a second 300-megawatt coal-fired unit at Poplar River and a 252-megawatt hydro-electric dam and generating station at Nipawin. SPC is studying the feasibility of power plant construction at several other sites in the province. The company's apparent first choice at Gravelbourg has run into effective opposition from local farmers who are declaring the plant's prospective location as a heritage site. The provincial government has been negotiating with neighbouring Manitoba for the importation, starting in 1987, of 500 megawatts of hydro-electricity, but a new Manitoba government is reviewing the benefit of such an arrangement.

Manufacturing

Saskatchewan has a very small manufacturing sector, 30 percent in food and beverages, although several parts of the sector are displaying increased strength. The manufacture of agricultural implements is a successful indigenous industry. A host of companies have sprung up from the ingenuity of individual farmers confronting problems peculiar to their environment. These Saskatchewan manufacturers of smaller, less expensive equipment such as augers, rockpickers and dozers, had 1979 sales of \$156 million, according to industry figures.

Saskatchewan is the headquarters of Interprovincial Steel and Pipeline Corporation Ltd., the only steel and pipe manufacturer in Western Canada. IPSCO's Regina plant has just completed an \$83 million expansion program to increase its production capacity to 680,000 tonnes a year. IPSCO has a \$475-million contract to provide pipe to the pre-build section of the Alaska Highway Natural Gas Pipeline.

In the city of Saskatoon a fledgling advanced-technology industry is emerging. After signing a \$22-million contract for fibre optics with Northern Telecom Ltd., Saskatchewan Telecommunications convinced the company to build an \$8-million plant in Saskatchewan which opened in April. Several other electronics firms are also operating in Saskatoon, where the Saskatchewan Economic Development Corp. recently built an industrial park for the advanced-technology industry.

With food becoming an increasingly valuable commodity, Saskatchewan is thankful for the crops that still dominate the economy. But stabilization has been the economic password of recent years and the province has aggressively diversified its primary base. The province points to its string of positive growth years as indication that its policy of diversification and stabilization is working.

Capital investment projects in Canada

Manufacturing industries

This list shows major capital spending projects in progress or firmly committed in the manufacturing sector. Only projects costing more than \$10 million are included. Information on these projects has been obtained from press reports. Major projects planned but subject to government approval are not included. Other sectors will be covered in the next issue of the *Foreign Investment REVIEW*. This report was prepared by the staff of the Foreign Investment Review Agency with the assistance of the Economics Department of the Bank of Nova Scotia.

Company and project description	Completion date	Cost (\$ million)	Location
British Columbia			
Alcan Aluminum Ltd. New carbon paste plant	1982	68	Kitimat
BC Development Corp. and CP Air Engine overhaul plant	1984	54	Delta
BC Timber Ltd. Pollution control	1987	75	Prince Rupert and Castlegar
British Columbia Forest Products Ltd. Third newsprint machine	1982	150	Crofton
Canadian Forest Products Ltd. Modernization and expansion	1985	180	Port Mellon
Canadian Occidental Petroleum Ltd. Modernization of caustic soda treatment plant	1983	14	Vancouver North
Cariboo Pulp & Paper Co. Ltd. Pulp mill expansion	1983	19	Quesnel
Cariboo Diatomite Ltd. Manufacturing filtration products	n.a.	13	Quesnel
Crown Zellerbach Canada Ltd. Pulp and paper mill expansion	1982	172	Campbell River
Sawmill	1983	48	Coquitlam
Cominco Ltd. Ferrosilicon brick plant (planned)	1984	60	Kimberley
Eurocan Pulp and Paper Co. Expansion and modification of production facilities (3 projects)	1982	100	Kitimat and Lejac
Evans Products Co. Ltd. Expansion, forest products	1986	10	Lillooet
Finlay Forest Industries Ltd. Expansion of pulpmill, new sawmill	n.a.	32	Mackenzie
MacMillan Bloedel Ltd. Modernize kraft pulp bleaching	n.a.	19	Harmac
New sawmill	1982	60	Chemainus
Paper mill expansion	1982	57	New Westminster
Pulp mill expansion	n.a.	75-220	Nanaimo
Northwood Pulp and Timber Ltd. Pulp mill expansion	1982	310	Prince George
Ocelot Industries Ltd. New methanol plant	1982	160	Kitimat
Prince George Pulp & Paper Ltd. Pollution control	1983	40	Prince George
Improvements, presses	n.a.	13	Prince George
Scott Paper Ltd. New plant	1984	63	New Westminster
Tahsis Co. Ltd. Pollution control (planned)	n.a.	18	Gold River
Weldwood of Canada Ltd. New sawmill	1982	24	northwest of Kamloops
West Fraser Mills Ltd. Planning mill/sawmill complex	n.a.	20	Chetwynd

Western Forest Products Ltd.			
Improvement and expansion of pulp production	1984	205	near Squamish
Improvement and pollution control	1984	60	Port Alice
Improvement of sawmills	1984	60	Vancouver

Alberta

Alberta Energy Company Ltd. and Du Pont Canada			
Low-density polyethylene plant (planned)	1984	200	near Edmonton
Alberta Gas Chemicals Ltd. Methanol plant expansion	1982	140	Medicine Hat
Alberta Gas Ethylene Company Ltd. Second ethylene plant	1984	500	near Joffre
Third ethylene plant	1985	590	near Joffre
Alberta National Supply Co. Ltd. Drilling equipment plant	n.a.	19	Red Deer
Alberta Pork Producers Marketing Board Meat packing plant	n.a.	30	n.a.
Biewag Energy Resources Methanol plant (planned)	n.a.	700	northeast of Edmonton
British Columbia Forest Products Ltd. Sawmill	1982	23	Fox Creek
Newsprint complex	1985	165	Hurdy
Canadian Liquid Air Ltd. Air-separation plant	1982	16	Edmonton
Celanese Canada Inc. Methanol plant	1982	255	near Edmonton
Vinyl acetate monomer plant (planned)	n.a.	500	near Edmonton
C-I-L Inc. Polyethylene plant expansion	1984	128	Edmonton
Dow Chemical of Canada Ltd. Polyethylene plant (planned)	1984	75	Fort Saskatchewan
Expansion of ethylene dichloride production	1984	135	Fort Saskatchewan
Esso Chemical Canada Fertilizer plant expansion	1982	45	Redwater
Ammonia and urea plant	1983	457	Redwater
Gainers Ltd. Meat processing plant	n.a.	20	Edmonton
Gulf Canada Products Co. Benzene plant	1985	250	Edmonton
Imperial Oil Ltd. Ammonia and urea fertilizer plant	1983	250	Edmonton
Phosphate fertilizer plant	1982	45	near Edmonton
Interprovincial Steel & Pipe Corp. Ltd. Pipe plant	1983	60	Calgary
Makin Project Initiators Ltd. Pulp and paper mill	n.a.	160	south of Edmonton
Mohawk Oil Co. Ltd. Recycling plant	1982	12	Edmonton
Molson Companies Ltd. Brewery expansion	1983	24	Edmonton
National Supply Co. Ltd. Drilling equipment	1982	22	Red Deer
Nova, an Alberta Corporation and Shell Canada Ltd. Styrene plant	1984	240	near Edmonton
Low-density polyethylene plant	1984	250	Joffre
Prudential Steel Ltd. Pipe plant expansion	1982	12	Calgary
Ram Steel Corp. Ltd. Pipe plant	n.a.	11	Red Deer
Sherritt Gordon Mines Ltd. Nitrogen fertilizer plant	1983	320	Fort Saskatchewan
Union Carbide Canada Ltd. Ethylene plant	1984	300	Central Alberta
Air-separation plant expansion	1982	12	Fort Saskatchewan
Wescan Pipe Protection Ltd. Pipe coating plant (2 nd phase)	1983	14	Edmonton

Manitoba - Saskatchewan

Air Canada			
Expansion of repair and data processing activities	n.a.	60	Winnipeg, Manitoba
Aluminum Co. of Canada Ltd.			
Aluminum plant (planned)	1984	500	Rockwood, Manitoba
CSP Foods Ltd.			
Oilseed processing plant	1982	30	Harrowby, Manitoba
Expansion and improvement	n.a.	16	Nepawin and Saskatoon, Saskatchewan and Altona, Manitoba
Griffin Canada Ltd.			
Plant expansion	1982	10	Winnipeg, Manitoba
Northern Telecom Canada Ltd.			
Plant	n.a.	12	Winnipeg, Manitoba
Prince Albert Pulp Co. Ltd.			
Sodium chlorate plant	1984	17	Prince Albert, Saskatchewan
Simplot Chemical Ltd.			
Nitrogen fertilizer plant expansion	n.a.	35	Brandon, Manitoba

Ontario

Abitibi-Price Inc.			
Newsprint mill improvement	1982	111	Iroquois Falls
	n.a.	66	Thunder Bay
	n.a.	15	Smooth Rock Falls
Algoma Steel Corp. Ltd.			
New seamless tube mill	1984	300	Sault Ste. Marie
Upgrade hot strip mill	1982	50	Sault Ste. Marie
American Can of Canada Ltd.			
Kraft pulp mill modernization	1984	80	Marathon
BCM Technologies Ltd.			
Sodium chlorate plant	1982	15	Amherstburg
Boise Cascade			
Newsprint mill improvement	n.a.	80	Kenora
Canada Packers Inc.			
Beef packing plant	1982	16	Toronto
Canada Starch Co. Ltd.			
Corn wet-milling plant	1982	17	Cardinal
Liquid corn sweetener plant	1982	50	Port Colborne
Canada Wire and Cable Ltd.			
Plant construction and improvements	1984	50	Toronto
Caterpillar of Canada Ltd.			
New assembly plant	n.a.	n.a.	Brampton
Celanese Canada Ltd.			
Expansion of polyester production	n.a.	11	near Kingston
Chrysler Canada Ltd.			
Truck plant conversion and expansion	1983-84	203	Windsor
Car plant conversion and modernization		184	Windsor
Casting plant conversion		11	Etobicoke
Improvement of various plants		108	n.a.
New research and development facilities	n.a.	20	Windsor
C-I-L Inc.			
Ammonia plant	1984	217	Courtright
Cyanamid Canada Inc.			
Calcium carbide plant	1983	20	Niagara Falls
Fertilizer plant expansion and improvement	1983-84	20	Niagara Falls
De Havilland Aircraft of Canada Ltd.			
Expansion	1983	75	Toronto
Dennison Manufacturing Company			
Expansion	n.a.	10	Mississauga
Diemaster Tool Inc.			
Modernization and new plant	n.a.	12	Mississauga
Dofasco Inc.			
Expansion of steel production	1984	90	Hamilton

Dominion Foundries and Steel Ltd.			
Second hot strip mill	1983	450	Hamilton
Fourth galvanizing line	1984	90	Hamilton
Domtar Inc.			
Linerboard and newsprint plant modernization	1982	43	Red Rock
Plant modernization	n.a.	120	Cornwall
Du Pont Canada Inc.			
Polyethylene plant expansion (2 nd phase)	1983	n.a.	Sarnia
Textile plant expansion	n.a.	16	Kingston
E.B. Eddy Forest Products Ltd.			
Pulp and bleach facilities, specialty paper machines and other projects	1983	250	Espanola
Modernization	n.a.	35	Ottawa region
Esso Chemical Canada (Imperial Oil)			
Polyethylene plant	1983	150	Sarnia
Polyvinyl plant expansion	1983	37	Sarnia
Ford Motor Co. of Canada Ltd.			
Assembly plant conversion	1983	115	Oakville
General Motors of Canada Ltd.			
Expansion and modification	1982	71	Oshawa
Auto assembly plant	1982	100	Oshawa
Paint finishing plant	1982	30	Oshawa
Grant & Wilson Ltd. and Partners			
Lumber mill	1982	24	Englehart
Great Lakes Forest Products Ltd.			
Modernization, paper mill	1983-84	250	Dryden
Expansion and modernization, fine paper	1983	90	Dryden
Newsprint mill modernization	n.a.	90	Thunder Bay
Imperial Tobacco Ltd.			
Expansion and new equipment	1981-86	21	Guelph
Jarvis Clark Co. Ltd.			
Mining equipment plant	n.a.	13	Burlington
Kellogg Salada Canada Inc.			
Cereal plant	n.a.	10	London
Kimberly-Clark of Canada Ltd.			
Kraft pulp mill improvement	1982	12	Terrace Bay
MacMillan Bloedel Ltd.			
Modernization	n.a.	12	Sturgeon Falls
Miracle Mart Ltd.			
Meat processing plant	n.a.	20	Toronto
Mitel Corp.			
Expansion of production lines	n.a.	72	Kanata
New plant	1983	29	Renfrew
Nelson Steel Co. Ltd.			
Steel processing plant	1983	n.a.	Nanticoke
The Ontario Paper Co. Ltd.			
Newsprint mill modernization and expansion	1984	260	Thorold
Petrosar Ltd.			
Modifications (phase 1)	1982	50	Sarnia
(phase 2)	1984	400-500	Sarnia
Pilkington Glass Ltd.			
Special glass production	n.a.	20	Scarborough
Polysar Ltd.			
Butyl rubber and isobutylene plant	1982	250	Sarnia
Expansion of waste treatment installations	1982	26	Sarnia
RDB Building Products Ltd.			
Manufacture of bricks and tiles	1982	12	Milton
Rio Algom Ltd.			
Expansion and modernization	1991	100	Welland
Spruce Falls Power & Paper Co. Ltd.			
Modernization, new thermo-mechanical pulp mill, environmental protection	1982	100	Kapuskasing
St. Lawrence Cement Co. Ltd.			
Expansion	n.a.	21	Mississauga
The Steel Company of Canada Ltd.			
Expansion program	1986	655	Nanticoke, Hamilton

3M Canada			
Tape manufacturing	1982	14	Perth
Union Carbide Canada Ltd.			
Expansion and modification	1984	40	Sarnia, Walkerton
Urban Transportation Development Corp. Ltd.			
Manufacture of transportation equipment	1982	30	Kingston
Uniroyal Inc.			
Increase capacity of tire plant	1982	23	Kitchener
Waferboard Corp. Ltd.			
Plant expansion	1982	13	Timmins
Xerox Canada			
Research Centre	1983	18	Toronto

Québec

Abitibi-Price Inc.			
Expansion and pollution control	n.a.	250	Saguenay - Lac St-Jean
Plant conversion	1983	80	Beaupré
Alcan Aluminum Ltd.			
New smelter - 3 rd phase	1982	150	Grande Baie
Alumina plant upgrading	1982	42	Jonquière
Alumina plant upgrading	1982	42	Vaudreuil
Pollution abatement	1982	13	Beauharnois
New aluminum fluoride plant	1984	95	Jonquière
Alcan Products Canada Ltd.			
Wire and cable plant renovation	n.a.	20	Shawinigan
Bombardier-MLW Ltd.			
Plant modernization	n.a.	16	Montréal
Plant expansion	n.a.	14	Valcourt
Plant expansion	n.a.	12	La Pocatière
Canada Wire and Cable Ltd.			
Copper rod mill	1982	25	Montréal
Canadian Reynolds Metals Co. Ltd.			
Aluminum plant expansion	1984	500	Baie Comeau
Celanese Canada Inc.			
Expansion of polypropylene fibre production	n.a.	15	Saint-Jean
Canadian General Electric Company			
Engine parts plant	1983	97	Bromont
Canadian International Paper Company			
Modernization and expansion	1984	60	Trois-Rivières
Pollution control	1982	24	La Tuque
Plant modernization	1985	n.a.	Matane
Consolidated-Bathurst Ltd.			
New pulp mill and improvements	1982	35	Grand'mère
Newsprint mill improvement	1982	32	Shawinigan
Plant improvement	1982	61	Trois-Rivières
Plant modernization	1984	85	Port Alfred
Dominion Bridge-Sulzer Inc.			
Plant expansion	1984-85	28	Lachine
Domtar Inc.			
Newsprint mill improvement	n.a.	29	Dolbeau
Conversion and pollution control	1983	36	Donnacoona
Donohue Inc.			
Newsprint mill modernization	1986	50	Clermont
Donohue-Normick Inc.			
Newsprint mill	1982	190	Amos
Erco Industries Ltd.			
Sodium chlorate plant expansion	1983	20	Buckingham
Forex Leroy Inc.			
Corrugated cardboard plant	1983	25	Val-d'Or
GLC Canada Inc.			
Graphite electrode plant	n.a.	62	Lachute
Gaspesia Co.			
Expansion of production	1986	90	Chandler
IBM Canada Ltd.			
Plant conversion	n.a.	60	Bromont
Imperial Tobacco Ltd.			
Expansion of cigarette manufacturing	1986	100	Montréal, Québec

Klocker-Humboldt-Deutz AG Manufacture of engines	1983	78	Boucherville
Kunz and Co. and Rexfor Inc. Particle board and furniture component factory	n.a.	65	Matapedia Valley
Maclaren Power and Paper Co. Expansion and pollution control	n.a.	100	Buckingham region
Marine Industries Ltd. Plant expansion and modernization	1983	17	Tracy
Noranda Mines Ltd. Smelting plant improvement	1982	35	Noranda
Reed Paper Ltd. Modernization and pollution control	1986	200	Québec
Pratt & Whitney Aircraft of Canada Ltd. Plant expansion and new equipment	1984	69	Longueuil and St-Hubert
Raffinerie du Sucre du Québec Plant expansion	n.a.	30	Mont-St-Hilaire
Rexford Inc. and F.F. Soucy Inc. Newsprint mill	n.a.	234	Matane
Sawmill	n.a.	9	Causapscal
Rolland Inc. Modernization	1986	37	St-Jérôme and Mont Rolland
Scott Paper Ltd. Modernization and expansion	n.a.	150	Crabtree, Lennoxville
Sidbec-Dosco Ltd. Steel rod plant improvement	n.a.	25	Longueuil
Tembec Inc. Sulphite pulp mill expansion and modernization	1984-85	70	Témiscaming
Alcohol plant	1983	25	Témiscaming
Wabasso Inc. Sheet plant modernization	n.a.	24	Trois-Rivières

Atlantic Region

Acadia Forest Products Ltd. Plant modernization	1985	38	Nelson-Miramichi, N.B.
Bowater Mersey Paper Co. Ltd. Modernization and pollution control	1983	n.a.	Brooklin, N.S.
Bowater Newfoundland Ltd. Pulp mill	n.a.	17	Corner Brook, Nfld.
Erco Industries Ltd. Expansion of phosphorus production	1984	27	Long Harbour, Nfld.
Fraser Inc. Pulp mill modernization	1984	170	Atholville, N.B.
MacMillan Rothesay Ltd. Newsprint mill improvement	1984	14	Saint John, N.B.
Michelin Tires (Canada) Ltd. Plant	n.a.		Waterville, N.S.
Plant expansion	n.a.	400	Granton, N.S.
Plant expansion	n.a.		Bridgewater, N.S.
Mitel Corporation Two microprocessor plants	n.a.	48	Buctouche, N.B.
Moosehead Breweries Ltd. Brewery expansion	n.a.	33	Saint John, N.B.
National Sea Products Ltd. Fish processing plant	n.a.	15	Lockport, N.S.
New Brunswick International Paper Co. Newsprint mill expansion	1982	158	Dalhousie, N.B.
Nova Scotia Forest Industries Plant improvement	1982	45	Point Tupper, N.S.
St. Anne - Nackawic Pulp & Paper Co. Ltd. Pollution abatement, energy conservation and modernization	1985	62	Nackawic, N.B.
Sydney Steel Corp. Plant modernization (planned)	1990	351	Sydney, N.S.

Assistance to industry for research and development

To round out this issue of the *Foreign Investment REVIEW*, with its focus on the advanced-technology industry, what follows is a description of industrial assistance programs designed specifically to encourage research and development.

In recognition that the growth and competitiveness of industry depends to some extent on innovation in products and processes to keep up with the demands of a changing world, both the federal and provincial governments have set up a range of programs designed to encourage business to undertake or increase research and development activities. These programs range from outright grants to salary subsidies to in-plant problem-solving to technical information.

Research and development assistance programs complement and often may be used in combination with the other, more general incentive programs usually described in the *REVIEW* (for federal government programs see Vol. 4, No. 2; for provincial programs see Vol. 5, No. 1). Programs described in this issue are not the only ones available, however. For instance, some municipalities and private organizations also offer R&D assistance to industry, and programs included here are open to everyone.

Some departments or agencies of government, like Newfoundland's Department of Fisheries, may fund projects on an individual basis although no formal research and development program exists. Centres of advanced technology at universities and research councils across the country can provide a wealth of information and practical assistance. Industrial parks such as Innovation Place in Saskatoon, Saskatchewan are designed to help research and development and advanced-technology businesses become established in an environment suited to their particular needs. Alberta is one of the provinces that publish material about how to start and finance a business, and other provinces like Ontario have full-scale policies of industrial stimulation that specifically support research and development. The Government of Canada, in fact, has set an annual spending target of 1.5 percent of the gross national product for research and development by 1985.

Government of Canada programs

National Research Council

Technical Information Service

In-plant technological assistance and an information service provide the most direct access possible to current technology for the solution of industrial problems. **Contact:** National Research Council, Ottawa K1A 0S2

Canadian Institute for Scientific and Technical Information

The Institute collects information and makes it available at very little cost in the form of tailored research reports for individual firms, academic institutions, government and individuals. **Contact:** National Research Council, Ottawa K1A 0S2

Program for Industry/Laboratory Projects (PILP)

Financial and technical assistance, up to the full underwriting of the company's project or product development costs, is available to Canadian-based companies, either alone or with others. The program is designed to promote the transfer to industry of government and other non-industrial research results and to develop their commercial potential. **Contact:** PILP Program Office, National Research Council, Ottawa K1A 0R6

Industrial Research Assistance Program

To increase the calibre and scope of industrial research and development in Canada in the business environment, the program will pay the salaries of individuals working on approved projects, covering about 50 percent of the overall costs of selected research projects. The program can also assist firms too small to carry out their own research by paying for sub-contracted research. All provincially or federally incorporated companies engaged in physical and life sciences and engineering technology are eligible. **Contact:** National Research Council, Ottawa K1A 0R6

Natural Sciences Engineering Research Council

Strategic Grants in Aid of Research

Grants are available to individuals or groups of researchers at Canadian universities for research in areas of national concern, e.g. energy, environment, oceans. **Contact:** Natural Sciences Engineering Research Council, Ottawa K1A 0R6

Project Research Applicable in Industry

To capitalize on advances in university research showing potential for eventual commercial exploitation in Canada, grants are available to support projects with a

maximum two-year duration, carried out by a university researcher in collaboration with a Canadian-based company that could exploit the results to the benefit of the Canadian economy. **Contact:** Natural Sciences Engineering Research Council, Ottawa K1A 0R6

Industrial Research Fellowship Awards

Recent doctoral graduates in the natural sciences or engineering gain industrial research and development experience for up to five years. Research fellows are employees of the company at which their award is held and must devote their time to research, development or innovation. Assistance is in the form of \$20,000 a year in the first three years and \$10,000 in the fourth and fifth. To apply, recent graduates contact the company of their choice and the company submits a nomination. **Contact:** Natural Sciences Engineering Research Council, Ottawa K1A 0R6

Department of Regional Industrial Expansion

Microelectronics Support Program

The program is designed to help introduce microelectronics technology to Canadian industry generally. It is open to manufacturers who have not previously incorporated microelectronic devices in their products or operations, for commercially viable projects that would be unable to proceed without government support. For feasibility studies, assistance is up to 100 percent of the cost, to a maximum of \$10,000; for project support, assistance is up to 75 percent of the direct cost of the work required to apply commercially available standard microelectronic devices to products or processes, to a maximum of \$100,000; for custom microcircuit design, assistance is up to 75 percent of the direct cost of designing a custom microelectronic device, to a maximum of \$100,000. **Contact:** Department of Regional Industrial Expansion, Microelectronics and Instrumentation Division, Electrical and Electronics Branch, Ottawa K1A 0H5

Institutional Assistance Program

Firms contract research services on a cost-recovery basis with an individual non-profit institution funded under the

program. **Contact:** Technology Programs, Department of Regional Industrial Expansion, Ottawa K1A 0H5

Fashion Design Assistance Program

To strengthen Canadian fashion design capabilities and promote Canadian fashion design, assistance in the form of internship, training-in-industry, grants for special courses and promotions are available to Canadian textile, apparel and related businesses. **Contact:** Fashion Canada, Ottawa K1A 0H5

Design Canada

Financial assistance, management training, technical advisory assistance, information seminars and encouragement of design professions are offered to individuals or small- and medium-sized businesses interested in product improvement or advanced design studies. **Contact:** Design Canada (62), Department of Regional Industrial Expansion, Ottawa K1A 0H5

Protein, Oil and Starch (POS) Pilot Plant Corporation

Experimental facilities for work to develop technology for processing grains and oilseeds are available at a fee to any Canadian business. **Contact:** POS Pilot Project, Saskatoon, Saskatchewan, or Department of Regional Industrial Expansion, Ottawa K1A 0H5

Industry Energy Research and Development Program (IERD)

Contributions of up to 50 percent of the total estimated costs of approved projects are available to encourage research and development of new and improved processes and equipment that will reduce energy consumption in industry and ensure the widest possible use of technology. All Canadian companies, consulting firms, and trade and research associations are eligible. **Contact:** Department of Regional Industrial Expansion, Ottawa K1A 0H5

Defence Industry Productivity Program (DIP)

Any Canadian secondary manufacturer involved in the production of defence products is eligible for assistance that may cover the development of products for export, acquisition of modern machine tools and other advanced equipment, and pre-production expenses to es-

tablish manufacturing sources in Canada for export markets. Approved research and development projects may receive contributions of up to 50 percent of eligible costs; machinery acquisitions and other production costs may be assisted up to 50 percent and be eligible for loan guarantees of up to 50 percent. **Contact:** Department of Regional Industrial Expansion, Ottawa K1A 0H5

Enterprise Development Program

Designed to encourage the growth of small- and medium-sized manufacturing and processing firms by assisting qualified companies to improve their viability and international competitiveness, the program provides: insurance of up to 90 percent in support of term loans made by private lenders to manufacturers and processors to restructure their operations or supplement working capital when normal financing is not available on reasonable terms; contributions of up to 75 percent of eligible costs for research and development and design projects, provided the project represents a significant burden on the company's resources; and contributions of up to 75 percent to engage consultants for market feasibility studies, productivity enhancement studies, product development and design and pollution technology projects. **Contact:** Department of Regional Industrial Expansion, Program Branch 41/A, Ottawa K1A 0H5

Department of Energy, Mines and Resources

Canada Centre for Mineral and Energy Technology (CANMET)

On a cost-recovery basis the centre responds to industry requests to conduct, sponsor and contract applied research and development on mineral, metal and fossil fuel technology. **Contact:** CANMET, Technology Information Division, Department of Energy, Mines and Resources, Ottawa K1A 0G1

Energy Research and Development

Consultants and businesses engaged in energy research are awarded contracts to explore new energy sources and commercialization, for example, alternatives to gasoline and increased energy efficiency. **Contact:** Department of Energy, Mines and Resources, Ottawa K1A 0E4

Department of the Environment

Energy from the Forests (ENFOR)

Contracts are awarded to Canadian organizations to undertake research and development projects to substitute forest biomass for petroleum. **Contact:** ENFOR Secretariat, Department of the Environment, Ottawa K1A 1G5

Development and Demonstration of Research and Energy Conservation Technology Program (DRECT)

Designed to help the private sector to develop and demonstrate equipment, systems or products to recover or otherwise save energy through resource recovery, the program supports business proposals to develop and construct energy-recovery or energy-saving prototypes and demonstration installations. **Contact:** DRECT Secretariat, Department of the Environment, Ottawa K1A 1C8

Water Pollution Technology

The Wastewater Technology Centre has facilities to solve waste treatment and disposal problems. Equipment is available for rent. Through the Research and Development Program, contracts are awarded for oilspills technology research and development. **Contact:** Department of the Environment, Ottawa K1A 1C8

Forestry Services, Research and Development

Advice and information is available to help provinces and industry effectively manage and use our forest resources. It researches ways to improve forest productivity, including studies of soils, fertilizers, genetics, insects and disease control and true biology. **Contact:** Department of the Environment, Ottawa K1A 1G5

Canada Employment and Immigration Commission

New Technology Employment Program

The program is designed to create employment for qualified post-secondary graduates in technologically innovative

work in manufacturing, product development, small-scale energy conservation and alternative energy technology by contributing up to 75 percent of wages to a maximum of \$290 per week per job for a maximum of 12 months, to a limit of \$150,000 per employer. Small private-sector firms, individuals, associations, community colleges, universities, research institutes and community organizations are eligible to become employers. **Contact:** Canada Employment and Immigration Commission, Ottawa K1A 0J9

Canola Council of Canada

Canola Utilization Assistance Program

Funding for research and development for improving manufacture and increasing commercialization of rapeseed products is provided to universities and private research institutions. **Contact:** Canola Council of Canada, Room 301, 433 Main Street, Winnipeg, Manitoba R3B 1B3

Public Works Canada

Construction Technical Systems Support

Computer design programs are available to consulting firms and other members of the public for energy analysis, design and construction, etc. **Contact:** Technical Systems Secretariat, Public Works Canada, K1A 0M2

Department of Communications

Technical Support for Space-Related Industry

David Florida Laboratory provides testing facilities on a cost-recovery basis for assembling and testing space hardware. The High Reliability Laboratory accepts only specialized, complex space technology problems on a cost-recovery basis. **Contact:** Communications Research Centre, Department of Communications, Box 11490, Station H, Ottawa K2H 8S2

Canada Mortgage and Housing Corporation

Housing Technology Incentives Program

Up to \$10,000 may be contributed for the development and implementation of

new ideas that increase the utility or performance of housing through improvements in design, construction or products. Energy conservation and housing rehabilitation are priorities. Any Canadian firm or individual may submit a proposal. Proposals must produce a practical demonstration and have potential to meet the National Building Code and Residential Standards. **Contact:** Canada Mortgage and Housing Corporation, Ottawa K1A 0P7

Department of Supply and Services

Contracting-Out

The Department of Supply and Services manages a contracting system and maintains lists of potential contractors to encourage private-sector research for government requirements. **Contact:** Department of Supply and Services, Ottawa K1A 0S5

Unsolicited Proposals for Research and Development

Interested Canadian firms submit unsolicited proposals for research and development projects they feel relevant to some government program. Departments examine the proposals within their specific mandate. If a department supports a proposal and is able to fund its implementation, it is usually approved. The Department of Supply and Services unsolicited proposals fund provides bridge financing to initiate projects pending their incorporation in departmental budgets. **Contact:** Science Centre, Supply and Services Canada, Ottawa K1A 0S6

Canertech

Firms with interests in energy conservation and renewable technology are eligible for this program which offers participation in joint ventures, equity investments, commercialization and marketing. **Contact:** Canertech, c/o Petro-Canada, 350 Sparks Street, Suite 306, Ottawa K1R 7S8

Federal Business Development Bank

Businesses with a reasonable chance of success but unable to attract needed financing on reasonable conditions may obtain financial aid including loans, loan guarantees, interim financing and equity financing, and management services. **Contact:** Public Affairs Department, Federal Business Development Bank, Box 6021, Montreal, Quebec H3C 3C3

Agriculture Canada

New Crop Development Fund

Designed to stimulate the development and adaptation of new crops, varieties and production practices, or new growing areas for established crops that offer promise to Canadian agriculture, the fund contributes up to 50 percent of eligible costs for commercially or provincially sponsored proposals, more for non-commercial ones. Canadian-incorporated commercial organizations, industrial and producer organizations, universities, provincial agencies and non-profit groups are eligible. **Contact:** Marketing Services Division, Marketing and Economics Branch, Agriculture Canada, Ottawa K1A 0C5

Agricultural Engineering Research and Development (AERD)

Funds are provided for proposals solicited through the Science Procurement System of the Department of Supply and Services, to improve such areas as mechanization, buildings and energy utilization for farmers and to assist Canadian industry in increasing the agricultural engineering research and development effort. Proposals can be made in response to advertised general program priorities or specific requirements, or on the initiative of the proposer who recognizes a previously unmet need for specific work. **Contact:** Research Branch, Agriculture Canada, Ottawa K1A 0C5

Revenue Canada — Taxation

Special Research and Development Investment Tax Credit

A tax credit of 20 percent in the Atlantic provinces and Gaspé, 10 percent elsewhere in Canada, is available for scientific research expenditures. Both capital and current expenditures may be claimed in the year in which the expenditure is made, to a calculable maximum. Unused credit may be carried forward to reduce taxes for up to five years. **Contact:** Corporate Rulings Directorate, Revenue Canada — Taxation, 875 Heron Road, Ottawa K1A 0L8

Research and Development Write-Off and Special Deduction

To encourage Canadian research and development efforts, a write-off of 100 percent of current and capital expenditures may be claimed in the year they are made. Until 1988 an additional deduc-

tion may be made by incorporated businesses, of 50 percent of the firm's increase in research and development expenditures over its previous three-year average. **Contact:** Corporate Rulings Directorate, Revenue Canada — Taxation, 875 Heron Road, Ottawa K1A 0L8

Provincial programs

Newfoundland

Market and Product Development Program

Marketing and product development assistance in the form of non-repayable grants of up to 50 percent of the total project cost, to a maximum of \$50,000, is available to companies that manufacture and market goods outside or within Newfoundland. **Contact:** Department of Development, St. John's, Newfoundland A1C 5T7

Product Design and Marketing Program

Non-repayable grants of up to 90 percent of the project cost are available for the design or improvement of products and for the establishment of marketing strategies and programs. **Contact:** Department of Development, St. John's, Newfoundland A1C 5T7

Research and Product Development

Small- to medium-sized primary producers, processors and manufacturers are eligible for non-repayable grants of up to 75 percent of total costs, to a maximum of \$7,500, for research and development projects. **Contact:** Department of Rural, Agricultural and Northern Development, 6th Floor, Atlantic Place, St. John's, Newfoundland A1C 1A8

Nova Scotia

Product Development Program

Nova Scotia manufacturers and processors may obtain up to 75 percent of approved costs, to a maximum of \$15,000 toward a \$20,000 project, to improve product quality and design, to develop new products, to enhance product development management, and to establish effective marketing strategies and programs. **Contact:** Department of Development, P.O. Box 519, 5151 George Street, Halifax, Nova Scotia B3J 2R7

Prince Edward Island

New Products Certification Program

In obtaining efficiency ratings and certification of new products to comply with provincial and federal registration, Prince Edward Island businesses who will manufacture the product in PEI may claim up to 75 percent of approved costs, to a maximum of \$10,000 per product. Eligible costs may include laboratory tests; shipping; specifications or drawings; travel, accommodation and living expenses; support equipment. The cost of production of the unit itself is not eligible. **Contact:** Department of Industry, Tourism and Energy, P.O. Box 2000, Charlottetown, P.E.I. C1A 7N8

Market Development Centre

A marketing consulting service is provided free (at shared cost in the case of a major project), to Prince Edward Island-based primary producers, processors and manufacturers. The centre is intended to strengthen domestic markets, to develop international markets, to encourage business to take advantage of identified market opportunities, to improve the image of P.E.I. products in all major markets, to provide assistance in package design, labelling and sales promotion, to develop new products, reformulate existing products and provide quality control services, and to provide a market information service. **Contact:** Market Development Centre, P.O. Box 1510, Charlottetown, P.E.I. C1A 7N3

Product Development Management Program

Assistance is available to manufacturers introducing a new product. Eligible costs include project feasibility studies, research and development, product design, production planning and market research, product models and prototypes, prototype testing, development of product specifications, and industrial graphics and packaging design. **Contact:** Department of Industry, Tourism and Energy, P.O. Box 2000, Charlottetown, P.E.I. C1A 7N8

New Brunswick

Product Development Management Program

Assistance is available to manufacturers introducing a new product. Eligible costs include project feasibility studies, research and development, product design, production planning and market

research, product models and prototypes, prototype testing, development of product specifications, and industrial graphics and packaging design. **Contact:** Department of Commerce and Development, Industrial Development Branch, P.O. Box 6000, Fredericton, New Brunswick E3B 5H1

Research and Productivity Council

The council provides significant scientific and technological capacity in certain fields, promotes the qualitative as well as quantitative benefits of research and industrial technology, provides independent technical and scientific advice to industry, concentrates on applied research, and attempts to shorten the time lag between the discovery of new processes, techniques and methods and materials and their useful application in business, industry and government in New Brunswick and elsewhere. Scientific, engineering, technical and management services are available to governments and companies in primary, manufacturing and service industries, usually on a contract basis. **Contact:** Research and Productivity Council, P.O. Box 1236, College Hill Road, Fredericton, New Brunswick E3B 5C8

Quebec

Technological Information Service

To disseminate technological, industrial and commercial information to Quebec business, the service provides telephone industrial information to industry; consultation on metric conversion (in-plant seminars, conversion plans); an information and awareness program on new energy sources for Quebec business; an industrial information bank; technological development assistance programs for businesses. No financial assistance is available. **Contact:** Quebec Industrial Research Centre, Department of Industry, Commerce and Tourism, at P.O. Box 570, 245 Hymus Boulevard, Pointe Claire, Quebec H9R 4S6, or at P.O. Box 9038, 333 Franquet Street, Sainte-Foy, Quebec G1V 4C7

Research and Development Service

Research and development is undertaken by a multidisciplinary team in cooperation with businesses. Design assistance and a support program are offered in cooperation with Design Canada. No financial assistance is available. **Contact:** Department of Industry, Commerce and Tourism, 710 Place d'Youville, Quebec, Quebec G1R 4Y4

Industrial Renewal Fund

Business may withdraw the lower of 25 percent of an eligible expenditure or the balance of the sum deposited in its name by the Quebec Minister of Revenue of Quebec. (Half of the provincial taxes the company has paid may be deposited in the fund.) The company must spend \$20,000 within 12 months of being granted a certificate for, among other things, increased research and development, design, improvement or implementation of production procedures or products. The program is designed to permit small and medium enterprises to plan expansions, to encourage reinvestment of profits and to ease the financing of plans to improve their procedures. **Contact:** Industrial Renewal Fund Administration, Department of Industry, Commerce and Tourism, 710 Place d'Youville, Quebec, Quebec G1R 4Y4

Ontario

Program to Encourage Products and Process Innovation

Investors or small business entrepreneurs based in Ontario may obtain up to 100 percent of eligible costs, to a maximum of \$10,000 to create prototypes of new inventions and to prove their feasibility. Projects of up to \$15,000 that have sound market potential and adequate patent protection are eligible. **Contact:** Ministry of Industry and Tourism, Small Business Development Branch, Queen's Park, Toronto, Ontario M7A 2E1

Industrial Engineering Assistance Program

To assist Ontario-based manufacturers experiencing problems such as high production costs and low productivity, free-of-charge industrial counselling may be provided in areas such as facility design, selection and design of tools and equipment, planning and control systems, job evaluation systems, and office systems and procedures. **Contact:** Ministry of Industry and Tourism, Small Business Development Branch, Queen's Park, Toronto, Ontario M7A 2E1

Manitoba

Industrial Technology Centre

The centre was set up to enhance the viability of existing industries, stimulate creation of manufacturing enterprises

based on new technology and make companies aware of the benefits of using contemporary technology. Scientific and technical services available to private companies include material and product evaluation and testing and product and process development. **Contact:** Industrial Technology Centre, Manitoba Research Council, Department of Economic Development and Tourism, 1329 Niakwa Road, Winnipeg, Manitoba R2J 2T4

Canadian Food Products Development

Individuals and companies involved in the food and beverage and feed industries may obtain technical assistance including use of pilot plant facilities for simulating production processes, evaluating equipment, etc.; information on equipment, procedures, data interpretation, government support programs, etc.; microbiological and chemical evaluation and testing of food products; and product development assistance. **Contact:** Canadian Food Products Development Centre, Manitoba Research Council, P.O. Box 1240, 810 Phillips Street, Portage la Prairie, Manitoba R1N 3J9

Industrial Benefits Program

The program is designed to assist new investors and expanding businesses to find Manitoba suppliers, and to assist Manitoba suppliers in meeting the needs of investors. Activities include the compilation of a sourcing directory, assisting investors to identify their needs, matching the needs with the firms listed in the directory, and assisting Manitoba-based firms in developing new technology and marketing. **Contact:** Industrial Benefits Branch, Department of Economic Development and Tourism, Winnipeg, Manitoba R3C 0V8

Manitoba Design Institute

The institute provides design consulting and advisory assistance to manufacturers for design research and product innovation. Cost-shared funding is available for design projects — packaging design, brochure design, corporate identity, and product design improvement. **Contact:** Manitoba Design Institute, 155 Carlton Street, Winnipeg, Manitoba R3C 3H8

Microelectronics Centre

Contract technology support is available to the industrial community. **Contact:** Department of Economic Development and Tourism, Winnipeg, Manitoba R3C 0V8

Industry Sector Development Program

Expertise and non-financial support are available to assist in evaluating new opportunities, particularly in six sectors: aerospace, electronics, food and beverage, health care products, light machinery, transportation equipment. **Contact:** Department of Economic Development and Tourism, Winnipeg, Manitoba R3C 0V8

Saskatchewan

Product Development Program

Manufacturing and processing firms may receive assistance of 50 percent of the costs of approved projects, to a maximum of \$10,000 to develop new products, upgrade existing products and develop special processes. **Contact:** Department of Industry and Commerce, 7th Floor, Power Building, Regina, Saskatchewan S4P 3V7

Product Development Management Program

Consulting assistance is available to manufacturing and processing firms introducing new or improved products into the market, including a professional review of the company's product development plans and recommendations for carrying out these plans. The company shares from 10 to 25 percent of the approved costs for assistance in management and technology design, marketing and feasibility studies, including prototyping and production drawings. **Contact:** Department of Industry and Commerce, 7th Floor, Power Building, Regina, Saskatchewan S4P 3Y7 or Saskatchewan Research Council, Industrial Services Division, 30 Campus Drive, Saskatoon S7N 0X1

Special Technological Consulting Services

Assistance in product design, value analysis, metallurgical failure analysis, machine health monitoring and manufacturing technology is available. **Contact:** Industrial Services Division, Saskatchewan Research Council, 30 Campus Drive, Saskatoon, Saskatchewan S7N 0X1

Alberta

Product Development Program

Manufacturers located in Alberta may claim up to 75 percent of eligible costs of projects not exceeding \$30,000 to increase their in-house design management understanding and capability. **Contact:** PDP Program Manager, Department of Economic Development, 10909 Jasper Avenue, Edmonton, Alberta T5J 3M8

Product Design and Marketing Program

Industrial technology grants are available to Alberta-based firms. **Contact:** Department of Economic Development, 10909 Jasper Avenue, Edmonton, Alberta T5J 3M8

British Columbia

Technical Assistance Program

The program is designed to assist proposed and existing British Columbia-based manufacturers, processors, and service-related manufacturers and processors with the costs of hiring consultants to do market and feasibility studies, testing and product improvement studies in order to expand facilities, diversify product line, create jobs or establish a new business. Up to 50 percent of consultant fees and 50 percent of the costs of studies may be claimed, to a maximum of \$5,000. **Contact:** Ministry of Industry and Small Business Development, Victoria, B.C. V8V 1X4

Research Grants

Grants ranging from \$10,000 to \$200,000 are available to individuals in both the public and private sectors to further their research. Awards are made for research in eight categories: agriculture and food; aquatic sciences; electronics and communications; energy; forests and forest products; manufacturing; mining, minerals and metals; and transportation. **Contact:** Science Council of British Columbia, c/o Secretariat on Science, Research and Development, 301-7671 Alderbridge Way, Richmond, B.C. V6X 1Z9

Graduate Research in Engineering and Technology

Scholarships are provided for graduate students engaged in scientific and engineering research in B.C. universities, industries and government, to encourage graduate students to work on research projects of interest to local companies. The \$6,000 scholarships may run for a maximum of three years. Projects must be undertaken in cooperation with local industries or organizations. **Contact:** Science Council of British Columbia, c/o Secretariat on Science, Research and Development, 301-7671 Alderbridge Way, Richmond, B.C. V6X 1Z9

Health Care Research Foundation Research Grants

Grants to support medical and health care research related to priority British Columbia problems are based on the

experience and training of the individual or group applying. Equipment that cannot be obtained from other sources may also be purchased. **Contact:** Science Council of British Columbia, c/o Secretariat on Science, Research and Development, 301-7671 Alderbridge Way, Richmond, B.C. V6X 1Z9

Industrial Development Subsidiary Agreement

One program assists businesses to undertake market and economic feasibility studies so that they will be able to implement their ideas and thus accelerate the creation of new economic opportunities and jobs. Up to 50 percent of the total cost, to a maximum of \$50,000, may be available for firm-specific market studies and economic feasibility studies related to manufacturing and processing. Research related to product design and development is not eligible.

A second program supports consultant studies of specific industrial opportunities that have demonstrable positive benefits for the province and its economy. Non-firm-specific research projects may be funded up to 100 percent, firm-specific research up to 50 percent, to maximum of \$50,000.

Studies must be related to industries or regions within the eligible area. Neither program is available in the Lower Mainland or Southern Vancouver Island, and all studies will be made available to the public. **Contact:** IDSA Research Program Coordinator, Ministry of Industry and Small Business Development, Victoria, B.C. V8V 1X4

Northwest Territories

NWT Financial Assistance Programs

The Government of the Northwest Territories administers a number of financial assistance programs to promote the development of economic activity and the creation of jobs in the NWT by assisting business operations and related activities. Special emphasis is given to businesses owned or operated by the Territories' original peoples. Assistance may include immediate interim financing to resident business enterprises, and seed capital funds to complement development loans. Special ARDA cash grants are given for projects that provide jobs and improve incomes and opportunities of people of Indian and Inuit ancestry. **Contact:** Government of the Northwest Territories, Box 1320, Yellowknife, NWT X1A 2L9

Statistical tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status

	1977	1978	1979	1980	1981
Reviewable new cases	261	360	380	337	341
Carryover from previous period	65	73	106	114	123
Total of above	326	433	486	451	464
Total resolved	253	327	372	328	287
Allowed	231	282	320	249	230
Disallowed	12	28	24	37	29
Withdrawn	10	17	28	42	28
Carried over to next period	73	106	114	123	177
Allowed cases as percentage of resolved (%)	91	86	86	76	80
Value of assets, all cases (\$000,000)	1,145	4,489	4,049	3,988	8,320

Table 2 — Country of control

	1977	1978	1979	1980	1981
Total	261	360	380	337	341
United States	171	243	248	197	202
United Kingdom	40	47	52	53	46
Other Western Europe	41	52	68	65	70
Austria	-	-	1	-	-
Belgium	2	1	2	1	4
Denmark	2	1	1	1	2
Finland	-	-	2	3	2
France	6	5	9	12	12
Germany, West	15	17	22	20	21
Greece	-	-	1	-	-
Italy	3	1	2	2	2
Liechtenstein	-	1	1	2	-
Luxembourg	-	1	-	-	-
Netherlands	4	8	6	7	4
Norway	-	1	-	1	2
Spain	-	-	1	-	-
Sweden	2	7	13	6	9
Switzerland	7	9	7	10	12
All other	9	18	12	22	23
Australia	1	-	3	4	2
Bermuda	-	-	1	1	2
Japan	3	7	2	2	3
Others	5	11	6	15	7
Allowed cases as percentage of resolved	%	%	%	%	%
United States	91	87	85	74	75
United Kingdom	95	78	87	79	78
Other Western Europe	90	89	88	78	92
All other	80	80	93	76	90

Table 3 — Industrial sector

	1977	1978	1979	1980	1981
Total	261	360	380	337	341
Primary	20	30	29	17	17
Agriculture, fishing and trapping	4	5	4	1	3
Forestry	1	1	-	2	-
Mines, quarries, oil wells	15	24	25	14	14
Manufacturing	108	162	178	141	132
Food, beverage and tobacco	15	15	14	14	6
Rubber, plastic and leather	6	12	5	6	8
Textiles, knitting and clothing	5	4	14	7	10
Wood, furniture and paper	12	14	10	8	15
Printing, publishing, and allied	2	4	5	4	6
Primary metal and metal fabrication	12	20	34	24	22
Machinery and transport equipment	14	28	43	23	22
Electrical products	12	16	20	17	10
Non-metallic mineral products	5	8	4	6	5
Petroleum and coal products	1	1	1	-	1
Chemical	10	22	17	12	17
Miscellaneous	14	18	11	20	10
Construction and services	133	168	173	179	192
Construction	3	1	6	6	15
Transportation, communication, utilities	10	10	9	9	8
Trade	72	101	93	93	83
Finance, insurance, real estate	15	19	12	27	19
Community, business, personal services	33	37	53	44	67

*Provision for review of acquisitions came into force April 9, 1974.

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status

	1977	1978	1979	1980	1981
Reviewable new cases	328	331	379	398	421
Carryover from previous period	58	52	64	70	129
Total of above	386	383	443	468	550
Total resolved	334	319	373	339	347
Allowed	297	273	323	287	247
Disallowed	12	21	22	27	43
Withdrawn	25	25	28	25	57
Carried over to next period	52	64	70	129	203
Allowed cases as percentage of resolved (%)	89	86	87	85	71
Planned investment, all cases (\$000,000)	803	323	202	1,005	1,068

Table 5 — Country of control

	1977	1978	1979	1980	1981
Total	328	331	379	398	421
United States	184	192	205	223	237
United Kingdom	31 ^r	26	45	37	40
Other Western Europe	85	80	82	111	78
Austria	-	3	-	3	-
Belgium	-	1	5	1	2
Denmark	6	4	2	7	2
Finland	1	1	7	1	4
France	17	16	15	23	19
Germany, West	26	18	19	25	23
Gibraltar	-	-	-	1	-
Greece	1	1	-	1	-
Ireland	-	1	1	-	1 ^r
Italy	10	10	6	14	4
Liechtenstein	-	-	-	1	-
Luxembourg	-	1	-	1	1
Monaco	1	-	-	-	-
Netherlands	3	1	4	12	8
Norway	3	3	1	3	1
Portugal	-	1	-	-	-
Spain	-	2	1	2	-
Sweden	9	5	6	9	5
Switzerland	8	12	15	7	8
All other	28 ^r	33	47	27	66
Australia	3	3	2	3	1
Hong Kong	3	3	4	6	27
India	1	1	1	-	3
Japan	10	6	17	3	14
Others	11 ^r	20	23	15	21
Allowed cases as percentage of resolved	%	%	%	%	%
United States	88	86	86	84	71
United Kingdom	82	81 ^r	92	83	76
Other Western Europe	95	87	88	89	75
All other	81	82 ^r	83	75	61

Table 6 — Industrial sector

	1977	1978	1979	1980	1981
Total	328	331	379	398	421
Primary	22	27	16	42	23
Agriculture, fishing and trapping	6	2	-	7	4
Forestry	2	2	1	2	-
Mines, quarries, oil wells	14	23	15	33	19
Manufacturing	94	99	100	126	118
Food, beverage and tobacco	7	6	11	11	5
Rubber, plastic and leather	5	5	9	11	10
Textiles, knitting and clothing	9	5	8	6	10
Wood, furniture and paper	5	6	9	14	9
Printing, publishing, and allied	-	4	5	4	3
Primary metal and metal fabrication	19	12	13	24	21
Machinery and transport equipment	19	19	20	18	23
Electrical products	5	7	8	13	7
Non-metallic mineral products	5	6	1	5	6
Petroleum and coal products	-	-	-	1	1
Chemical	3	6	7	9	10
Miscellaneous	17	23	9	10	13
Construction and services	212	205	263	230	280
Construction	4	14	12	12	18
Transportation, communication, utilities	5	11	11	7	11
Trade	133	103	156	129	149
Finance, insurance, real estate	16	11	14	7	11
Community, business, personal services	54	66	70	75	91

*Provisions for review of new businesses came into force October 15, 1975

^rRevised.

Articles in previous issues:

Vol. 2, No. 1	<p>New incentives for industrial research and development</p> <p>Investment opportunities and prospects in the Atlantic provinces</p> <p>FIRA procedures: clarifying some legal issues</p> <p>Banking in Canada: the chartered banks</p> <p>The short-term money market in Canada</p> <p>Corporate concentration and performance: recommendations of the Royal Commission</p>
Vol. 2, No. 2	<p>An introduction to Canada's coal industry</p> <p>European investment in Canada:</p> <ul style="list-style-type: none"> West European Soviet and East European <p>Canadian participation in foreign-owned businesses in Canada:</p> <ul style="list-style-type: none"> Management Equity <p>Small business in Canada</p>
Vol. 3, No. 1	<p>Japanese investment in Canada</p> <p>Canada's industrial relations in international perspective</p> <p>Acquisitions by multinationals</p> <p>Capital markets in Canada</p> <p>Westinghouse Canada: beyond the branch plant</p> <p>Investment opportunities in energy conservation</p>
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Vol. 5, No. 1	<p>British Columbia: Canada's slice of the Pacific Rim</p> <p>The changing pattern of Canada-US financial flows</p> <p>More foreign investment but . . . less foreign control</p> <p>Canada's investment program, 1981-2000</p> <p>New life for Canadian metal mining</p>

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CANADA

Autumn 1982 Vol. 6, No. 1



FOREIGN
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FOREIGN INVESTMENT REVIEW

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Edward C. Lumley, P.C., M.P.

New Minister for FIRA

Effective September 30, 1982, the Honourable Edward C. Lumley replaced the Honourable Herb Gray as Minister of Regional Industrial Expansion, and therefore as the minister responsible for the administration of the Foreign Investment Review Act. Mr. Lumley was previously Minister of State (International Trade).

Mr. Lumley, 43, began his career in an international soft drink company, working in a number of capacities, but primarily in sales management and franchise consulting. He later became president of a private company in the soft drink and vending industry.

Mr. Lumley has been an active parliamentarian, serving on the Standing Committee on Regional Development, as official parliamentary observer to the United Nations, and as a member of numerous Canadian delegations to international meetings, including the North Atlantic Assembly, the Canada-U.S. Interparliamentary Meeting, and International Monetary Fund, World Bank, and Inter-American Bank meetings. Before being appointed Minister of State for Trade in 1980, Mr. Lumley served as parliamentary secretary to the ministers of Regional Economic Expansion and Finance.

Among the other Cabinet appointments made September 30 were the Honourable Gerald Regan, Minister of State (International Trade); the Honourable Charles Lapointe, Minister of State (External Relations); the Honourable Donald Johnston, Minister of State for Economic Development and Minister of State for Science and Technology, and the Honourable Herb Gray, President of the Treasury Board.

In an earlier announcement, the Honourable Allan MacEachen was named Minister of External Affairs; the Honourable Marc Lalonde, Minister of Finance; and the Honourable Jean Chrétien, Minister of Energy, Mines and Resources.



Robert L. Richardson

FIRA gets new Commissioner

After more than eight years with the Foreign Investment Review Agency, six of them as its Commissioner, J.E. Gorse Howarth, M.B.E., has been appointed President of the Canadian Commercial Corporation, effective October 15, 1982. Mr. Howarth has been replaced by Robert L. Richardson, former Deputy Secretary of the Programs Branch of the Treasury Board Secretariat.

The new Commissioner, Mr. Richardson, 52, assisted the President of the Treasury Board in a special assignment related to administered prices under the Government's economic renewal program immediately before his transfer to the Agency. Mr. Richardson spent 11 years in foreign postings with the Department of Industry, Trade and Commerce, and worked for the Public Service Commission and the Department of Finance before joining

the Treasury Board Secretariat in 1971. Mr. Richardson has also helped to run his own small furniture factory for the past seven years.

Administrative changes under FIR Act

More foreign investment proposals will be eligible for review under the abbreviated procedures as a result of administrative changes under the Foreign Investment Review Act announced in the June 1982 budget of the Government of Canada. The abbreviated procedure requires only a short-form notice and leads to a decision, in most cases, within three to four weeks.

All investment proposals involving less than \$5 million in gross assets and fewer than 200 employees will now be eligible for the short procedures. Previously the ceiling was \$2 million in gross assets and 100 employees. With the higher ceilings, approximately 95 percent of new business investments and 80 percent of direct acquisitions will be eligible for consideration under the shortened procedures.

Indirect acquisitions — those involving the transfer of control of a Canadian business through a foreign merger or takeover of its foreign parent — involving gross assets not exceeding \$15 million and fewer than 600 employees will also be eligible for review under the short-form procedures. About 80 percent of indirect acquisitions will now qualify for the abbreviated procedures.

In the budget the Government expressed its determination to avoid unnecessary delays in the review process and to focus it on investments that have very considerable economic effects or involve important Canadian interests. Thus investments eligible for the abbreviated procedure will be subject to the full review procedure only in exceptional circumstances, where the investment appears to raise important policy issues.

Further administrative measures to provide greater clarity about the interpretation of the Act and to streamline the decision-making process were announced in mid-August.

The Foreign Investment Review Agency has been authorized to issue interpretation notes covering provisions and expressions used in the Act that experience has shown to be difficult to interpret. Six notes are being issued initially; others will follow as required. The first set of notes covers limited partnerships, single or isolated contracts, rights to acquire shares or property, businesses that have ceased operations, and the phrases "part of a business capable of being carried on as a separate business" and "substantially all of the property used in carrying on the business".

The Agency has also been authorized to provide formal opinions to investors on whether or not their investments are subject to review under the Act. Such opinions had previously been given on an informal basis to assist and guide investors.

Retrospective on Canada-U.S. relations

by Donald Barry

During the past 15 years, Canada-U.S. relations have undergone significant changes. The world in which a special relationship had developed and thrived between Canada and the United States has evolved to a point where both countries have found it necessary to reassess and adjust their approaches to international relations in general and their bilateral relations in particular.

Canada and the United States emerged from the Second World War closely allied and sharing a determination to restore stability and security in a world shattered by years of war. Both countries entered the immediate post-war years shouldering new international responsibilities, the United States as the leading nation in the Western Alliance and Canada as one of the alliance's strongest members. Both countries were instrumental in the creation of the North Atlantic Treaty Organization in 1949. This intense cooperation on the world stage was accompanied by close collaboration in their bilateral relations. This was exemplified by their agreement on the joint construction of the St. Lawrence Seaway in 1953, the creation of the North American Air Defence Command (now the North American Aerospace Defence Command) in 1958, the Defence Production Sharing Arrangement in 1959, and the Automotive Agreement in 1965, which created free trade between Canada and the United States in automotive products. Allies in war, the United States and Canada had become partners in peacetime.

Naturally, differences occasionally arose between the two countries. For example, Canada complained when it felt that the United States had failed to consult its allies before taking certain initiatives and that U.S. tariff policies hindered Canadian access to the American market. It also complained when U.S. laws were applied extraterritorially to U.S.-controlled companies operating in Canada. For its part, the United States expressed concern about Canada's reaction to U.S. initiatives at the time of the Cuban missile crisis and about Canada's ambivalence toward the acquisition of nuclear arms. Overall, however, the differences that did arise between them tended to be overshadowed by the cooperative climate of the time, as clearly reflected in a 1965 joint Canada-U.S. report entitled *Principles of Partnership*. The report endorsed the concept of partnership as being central to the relationship and recommended that Canada and the United States pursue a quiet, behind-the-scenes approach to bilateral issues.

Throughout this period, however, Canadians were becoming increasingly concerned about

the impact of the rapidly growing U.S. influence on Canada's cultural and economic sovereignty. Several Royal commissions of enquiry were established to study the issue as it related to culture (Massey report, 1951), the economy (Gordon report, 1957), broadcasting (Fowler report, 1957), and periodicals (O'Leary report, 1961). These led to the adoption of policies specifically designed to protect important sectors which Canada considered to be vital to its sovereignty, such as banking and broadcasting.

A major cause of Canada's concern was its dependence on foreign capital, particularly American capital. American investment rose from an overall level of 60 percent of all foreign investment in Canada in 1945 to 80 percent in 1964. The nature and concentration of U.S. investment was such that a number of Canadian industries seemed to be becoming, in the eyes of many Canadians, mere tributaries of American industry. Trade figures for the period reinforced this perception of Canada's economic dependence, the U.S. share of total Canadian foreign trade having grown from 55 percent in 1945 to nearly 65 percent in 1965.

Equally visible, if not more so, was the strong U.S. cultural influence on Canada. By the mid-1960s, for example, U.S.-based magazines had captured more than 75 percent of the Canadian market. *Time* and *Reader's Digest* alone drew more than 40 percent of the total domestic advertising revenue. Nevertheless, the Canadian government decided to exempt the Canadian editions of *Time* and *Reader's Digest* from the restrictions it had introduced on foreign periodical advertising in 1965. The United States, for its part, exempted Canada from the capital outflow restrictions designed to relieve its own balance-of-payments problems in 1963, 1965, and 1968. American influence was soon extended to television. In fact, the expansion of cable television was to bring American border television station programming to more than 50 percent of Canadian households, drawing increasing amounts of Canadian advertising revenue away from Canadian stations to the benefit of their U.S. counterparts.

In addition to these bilateral developments, the international conditions which had nurtured the special relationship between Canada and the United States had, by the mid-1960s, changed considerably. The first stirrings of detente, coupled with the economic resurgence of Western Europe and Japan and the emergence of the Third World contributed to a shift in international priorities from defence and security toward economic and social concerns. The emerging new world order with its challenges and opportunities caused national governments to reassess their foreign policy approaches. Canada and the United States were no exception.

In 1970 both governments released the results of their foreign policy reassessments. Surprisingly, neither of the reports touched seriously on the question of their bilateral relations, but they did confirm the adoption of more self-interested policies by both countries. The Canadian government announced a number of measures, including halving the Canadian troop commitment to NATO and extending its jurisdiction over Arctic waters. The American administration, among other things, enacted the Domestic International Sales Corporation (DISC) legislation, designed to substitute more American exports for investment abroad.

In Canada there was an upsurge in public concern over the extent of the country's economic and cultural dependence on the U.S., reflected in a Canadian government task force report on foreign ownership (Watkins report, 1968) and a study by a Special Senate Committee on the mass media (Davey report, 1970). In contrast to the Gordon report, which focused on foreign capital, the Watkins report concentrated on the profitability of foreign-controlled companies, particularly multinational enterprises, as well as the costs and benefits associated with foreign direct investment. The conclusions of the report prompted renewed public demands for government action. The Davey report evoked the same kind of reaction.

In 1971, the American administration suddenly announced its "New Economic Policy", a series of measures to relieve chronic U.S. balance-of-payments pressures. The measures included abandoning use of the gold standard as a measure of the convertibility of the value of the dollar and the imposition of a 10 percent surtax on imports. Significantly the American government refused to exempt Canada from the import surtax restriction. The refusal dramatically revealed the magnitude of Canada's vulnerability to the United States and prompted the Canadian government to make a full-scale reappraisal of the relationship.

The following year, both governments announced new bilateral approaches. President Nixon, in addressing the Canadian Parliament in April 1972, summarized the new American approach to Canada-U.S. relations in terms of the "the Nixon Doctrine" which "... rests on the premise that mature partners must have autonomous independent policies; each nation must define the nature of its own interests ...". He added: "Our economies have

become highly interdependent. But the fact of our mutual interdependence and our mutual desire for interdependence need not be inconsistent traits. No self-respecting nation can or should accept the proposition that it should always be economically dependent upon any other nation."

For its part, the Canadian government issued a policy statement entitled "Canada-U.S. Relations: Options for the Future". The report outlined three options for Canada. The first two options — to maintain the status quo or to seek closer bilateral integration — were rejected. Canada chose the third option, "a comprehensive long-term strategy to develop and strengthen the Canadian economy and other aspects of its national life". This strategy consisted of internal policies to reinforce Canada's economy and cultural life and to diversify its external economic relations to counter-balance ties with the United States.

Other events in the early 1970s contributed to the adoption of more independent policies by the two countries. For example, the prolonged involvement of the United States in the Vietnam War led Americans to conclude that it was time for other countries to assume a larger share of international responsibilities, and for the United States to pay closer attention to its own national interests. Furthermore, the oil crisis highlighted the need to protect national natural resources and the danger of too strong a dependence on other countries for the supply of essential goods.

An example of this sense of vulnerability was the fact that with only 2 percent of the U.S. economy under foreign control at the beginning of the 1970s, the American administration became concerned about the amount of foreign investment entering the country. A number of measures were adopted, including the imposition of information requirements on companies; the creation, in 1975, of an interdepartmental committee to monitor foreign investment in the United States (Committee on Foreign Investment in the United States, or CFIUS); and later the establishment of an office, under the Department of Commerce, to monitor foreign investments on a more regular basis.

Canada also took a number of national interest measures. Following the recommendations of the 1972 Gray report, the Foreign Investment Review Act was passed in 1973. The report identified the costs and benefits of foreign investment and demonstrated the need for a mechanism to ensure that such investments would benefit Canada. In addition, a national petroleum company, Petro-Canada, was established in 1975, and in 1976 legislation was enacted to strengthen the country's television industry by removing tax breaks for Canadian business advertising carried on U.S. stations and aimed at the Canadian market. The legislation also applied to foreign print media, ending the Canadian status of *Time* magazine. On the international front Canada reached consultative agreements with the European Economic Community and Japan in 1976.

The increasing priority given to national interests in both Canada and the United States caused friction. Canada was concerned about U.S. attempts to redress a temporary bilateral trade deficit by forcing Canadian concessions on tourism, defence production sharing and the Auto Pact. In addition, the United States imposed a countervailing duty on tire exports from a new Michelin tire plant in Nova Scotia, arguing that the regional development incentive from the Canadian government had given the company an unfair advantage. The problem of the extraterritorial application of American laws also resurfaced over Canadian trade with Cuba, and a new American law was adopted to make it less advantageous to hold American conventions in Canada. Meanwhile, U.S. officials expressed dissatisfaction over such issues as Canada's decision to phase out and place a tax on oil exports following the 1973 energy crisis, its new foreign investment policy and its legislation affecting U.S. border television interests.

At the end of 1976, declining national and global economic prospects, coupled with the energy shortage, convinced the governments of both countries that greater cooperation was necessary. This "rapprochement" was evident in the Canadian government's decision to authorize emergency gas exports during the U.S. natural gas shortage in the winter of 1976-77, the Alaska Highway Natural Gas Pipeline Agreement (1977), the Great Lakes Water Quality Accord (1978), the East Coast fisheries agreement (signed in 1979), the 1979 GATT Multilateral Trade Agreement, which will free some 80 percent of Canada-U.S. trade by 1987, and a new bilateral tax treaty and a memorandum of intent on transborder acid rain pollution, both signed in 1980. Nonetheless, new bilateral differences began to emerge. For example, competition between Ohio and Ontario for new auto plant investments aggravated existing problems of bilateral sharing under the Auto Pact. Other examples included the application of new American countervailing duties on Canadian advanced-technology exports, Canada's National Energy Program and its Foreign investment review policy, acid rain, trucking and the U.S. Senate's refusal to ratify the East Coast fisheries agreement. More recently, there has been a growing disposition to link the settlement of one bilateral problem to the solution of an unrelated issue, especially by the U.S. Congress, as in the case of the border broadcasting issue and Telidon.

Canada-U.S. relations have changed perceptibly over the past 15 years or so as both countries have sought to reconcile their national interests with the reality of their interdependence. Irritants caused by this readjustment have occasionally overshadowed the deeply-rooted stability of Canada-U.S. relations. Though their traditional "special relationship" now seems to be almost a thing of the past, economic, commercial, geographic and strategic factors will continue to make Canada-U.S. relations unique among bilateral relationships in the world.

How FIRA works

Prepared by staff of the Foreign Investment Review Agency

What happens between receipt of an investor's application and a decision by Governor in Council to allow or disallow a foreign investment proposal? The following article will give you a better idea of how Canada's foreign investment review policy works.

The process is simple. When the Compliance Branch determines that an investment is reviewable, it refers the case to the Assessment Bureau. The Bureau then assigns an assessment officer to help the investor identify the potential benefits to Canada in the proposed investment. The bureau also consults provincial and federal government departments concerning the compatibility of the proposed investment with government economic and industrial policies, assesses the merits of the proposal in terms of the five assessment criteria, and gives an assessment report to the Minister outlining the likely benefit to Canada. The actual review of investment proposals is the responsibility of the Minister who administers the Act, and the final decision to allow or disallow a proposal is made by Governor in Council (the Cabinet, acting with the approval of the Governor General).

For a new business or direct acquisition investment involving less than \$5 million in gross assets and fewer than 200 employees, or an indirect acquisition involving less than \$15 million and fewer than 600 employees, the investor may submit an abbreviated form of notice or application, which requires much less information than does the standard form¹. About 85 percent of all reviewable investment proposals fall under these thresholds and can be submitted on the short form.

After a short-form application is complete and receipt has been certified, the Minister has only 10 days in which to decide whether

the information provided in the abbreviated form will be sufficient to enable him to recommend, without delay, that the investment be allowed. In exceptional circumstances, where the investment appears to raise important policy issues, the Minister may require that the proposal go through the in-depth review even though it falls below the specified thresholds.

If the application can be reviewed under the abbreviated procedure, the Agency uses Telex to notify the governments of any province or territory that may be significantly affected by the investment, and any federal government departments that may have a policy interest in the proposal. Through previously established procedures, the Agency sends information about the proposal to a single contact in each of the appropriate federal departments and provincial or territorial governments. Within 48 hours, these contacts must inform the Agency whether they have any industrial or economic concerns about the investment or whether they require more information before they can formulate their opinions on the proposal. The contacts are given only as much information about the proposal as they need to provide advice and they, too, are bound by the confidentiality provisions of the FIR Act not to disclose any information about the investment proposals they review.

Meanwhile, the Agency carries out its own evaluation. An assessment officer may contact the investor for further information, for example, for an elaboration of certain plans. Because of the short time allowed for processing short-form applications, contact is usually by telephone.

After the provinces and territories and other federal government departments have responded and the investor has been consulted, the Agency advises the Minister that the case could be assessed on the basis of the information provided in the short form, that

more information is needed on some aspect of the proposal, or that the proposal should be required to undergo the full review. If more information or a full review is considered advisable, the Agency sends the Minister a description of the case, stating the reasons that more information is required. In such a case, the Agency proposes the options to the Minister usually within a week of certifying receipt of a short-form application.

Applications involving investments too large to qualify for the abbreviated procedure and small-business applications that raise major policy issues undergo full review. After the receipt of a complete standard form of notice has been certified, in other words, when all the basic information requirements that are prescribed by regulation have been met, the Minister has 60 days in which to decide whether he has sufficient information to recommend that the investment be allowed, and to give the investor the opportunity to submit further information if required.

Throughout the full review process, an assessment officer works closely with the investor or his representative. The number and kind of meetings vary from case to case, but in the majority of full procedure cases, the following pattern is evident. When the application has been certified as complete, an assessment officer may invite the investor to come to Ottawa for a meeting or, as frequently happens, a meeting is held at the request of the investor. Typically, the investor is represented by someone knowledgeable about the parent company operations and the new business to be established or the business being acquired, and by legal counsel. The Agency is usually represented by two assessment officers so that the investor is assured of always being able to reach someone in the Agency who is familiar with the proposal.

The meeting begins with a brief description of the parent company's operations and of the planned Canadian investment. The inves-

¹ At press time the Regulations pursuant to the Foreign Investment Review Act were under review and pending their amendment, only investments involving less than \$2 million and fewer than 100 employees could be submitted on the short form although the abbreviated procedure was being applied to all proposals under the new thresholds.

tor's representatives indicate why they believe the investment could benefit Canada. The assessment officers in turn may suggest ways in which the proposal could be improved to show significant benefit to Canada.

The assessment officer, in some ways, wears two hats. While he or she is there to assist the applicant in making the best investment proposal possible, the assessment officer is also the first step in the process of evaluating the proposal to determine significant benefit.

The assessment officers assist the investor to make the investment proposal as attractive as possible. Their suggestions, however, are just that, and the investor is free to accept or disregard them. Commitments or undertakings by the investor are not required, but obviously they can often help to make a proposal complete, precise, and binding, thus allowing the Government to assess with greater certainty the likely effects of the investment.

Following the meeting, the applicant and his counsel usually draw up a list of plans and undertakings for submission to the Agency. In a relatively few complex cases, a second or third meeting may be held, although refinements of the investor's proposal are more often handled over the telephone and confirmed by letter or Telex. Discussions with investors of their undertakings are confined to those relating to key elements of the investment proposal. Naturally, the key elements vary from proposal to proposal.

Undertakings offered by investors are not the only elements which must be assessed in the review process. Many features of an investment may be of significant benefit to Canada without being covered by an undertaking. For example, an investor's plans to establish a new business that uses important new technology might be considered intrinsically beneficial through its contribution to Canadian technological development. Similarly, a plan to bring unique or distinctive products or services to Canadian consumers, or products or services to an area or region of Canada that is inadequately served could be viewed as beneficial in its own right. In addition, a proposal by one small business to merge with another in an industry dominated by a few large firms might well be seen as beneficial by increasing effective competition in that industry.

For full review cases the entire application is sent out to the governments of provinces that would be affected by the investment. The contact — the same one who participates in the abbreviated procedure — is usually in the provincial department of industry or its equivalent, and is responsible for consulting any other provincial departments that may have some interest in the proposal. All officials consulted are bound by the confidentiality provision of the Act. Provincial views are an important consideration in the decision of the Governor in Council to allow or disallow a particular investment, especially in industries that are subject to provincial regulation. In addition, the Government of Canada in January 1982 announced a policy of giving particular

attention to the regional dimension in all decisions and programs.

Other federal government departments are also consulted. For instance, all full procedure cases are sent to the Bureau of Competition Policy of the Department of Consumer and Corporate Affairs for comment on the effect the investment would have on competition. The Department of Regional Industrial Expansion (the merged departments of Industry, Trade and Commerce and Regional Economic Expansion), as the department most responsible for industrial policy, also reviews most cases. Other departments often, but less frequently consulted include Energy, Mines and Resources; Communications; Transport; and Agriculture.

The Agency, however, cannot solicit outside opinions because the confidentiality provisions of the Act protect privileged information submitted by investors. In fact, unless a proposal is already public knowledge, the Agency may not even confirm or deny its existence. But the Agency considers any view submitted by outside parties and reports it to the Minister. The public frequently becomes aware of transactions such as takeovers of Canadian businesses through the public disclosure requirements of the security exchange laws and regulations in a number of other countries, including the United States. In addition, sometimes an investor will advise the news media that a proposal is under review.

If, on the basis of the information he then has, within 60 days from the date of certification the Minister is unable to complete an assessment, to make any recommendation to the Governor in Council, or to recommend allowance, a notice is sent to inform the investor and advise him or her of the right to submit further representations.

The wording of the notice sent may indicate how the proposal is faring in the review process. Most notices state that the Minister "is unable to complete the assessment with regard to the investment", which generally means simply that the investor has not yet completed the submissions in support of the investment proposal. If, however, the notice states that the Minister "is unable to make any recommendation to the Governor in Council regarding the investment", or "is unable to recommend to the Governor in Council that the investment . . . be allowed", it suggests that the investor should re-examine his proposal with a view to strengthening it. At the request of the investor, the assessment officers responsible for the case will provide advice and assistance in addressing any shortcomings identified in the proposal. If an investor's proposal has not been allowed within 60 days and the Minister has not issued a notice advising the investor of his or her right to make further representations, the proposal is automatically deemed allowed on the 61st day.

When the investor's representations and the Agency's analysis are complete, Agency officials draft a memorandum for the Minister's signature. The amount of detail in the memorandum depends on the size, complexity and importance of the case. Included in the memo-

randum is the Agency's assessment report outlining the likely benefits to Canada. Also included is a summary of all representations made by provincial governments, other federal government departments and outside parties.

To meet his statutory responsibilities under the Foreign Investment Review Act, the Minister must, for each application, review the information gathered by the Agency, assess the merits of the investment proposal by reference to the five assessment factors specified in the Act, and make a recommendation to the Governor in Council as to whether the application should be allowed or disallowed.

The Minister has the choice of accepting or rejecting the advice of the Agency. However, in addressing a question put to him by the House of Commons Standing Committee on Finance, Trade and Economic Affairs, former Commissioner of the Agency, Gorse Howarth, said: "Without attempting any precision . . . probably in 96 or 97 percent of cases, the advice given by the Agency is compatible with the Minister's recommendation to his colleagues."

Once the Minister has decided upon his recommendation, the application proceeds to Cabinet. The Cabinet procedure used depends on the size of the case. For most cases that have gone through the abbreviated procedure, a summary of the investment proposal, including the Minister's recommendation and all the salient details, is prepared and sent to the Special Committee of Council for Governor in Council approval. While there may be some brief discussion of the proposal, most of the Minister's recommendations are approved without comment.

For larger and more complex cases, and for cases where the Minister wishes to consult with his colleagues, a detailed memorandum to Cabinet is prepared and sent to the Cabinet Committee on Economic and Regional Development, where it is discussed in depth. After the Committee makes a decision, the application is forwarded to the Cabinet as a whole for ratification.

When the final Governor in Council decision is made, the Agency is informed and in turn informs the investor by telephone or Telex. The news media and the public are informed the day after the decision is made by means of a news release issued by the Minister. About a week later, a certified copy of the Order in Council is sent to the investor, and a copy is sent to any provinces concerned.

The foreign investment review process has now been in place for more than eight years. By March 31, 1982, the Government of Canada had rendered a decision on 4,013 investment proposals, of which approximately 90 percent were judged to be of significant benefit to Canada and were, therefore, allowed. Although performance of the review mechanism has been relatively efficient over the past eight years, the Government of Canada announced changes to the process in the June 28 budget and again in mid-August. The new measures, which are featured in the "News brief" section of this issue, are designed to make the process even simpler and faster for most investors.

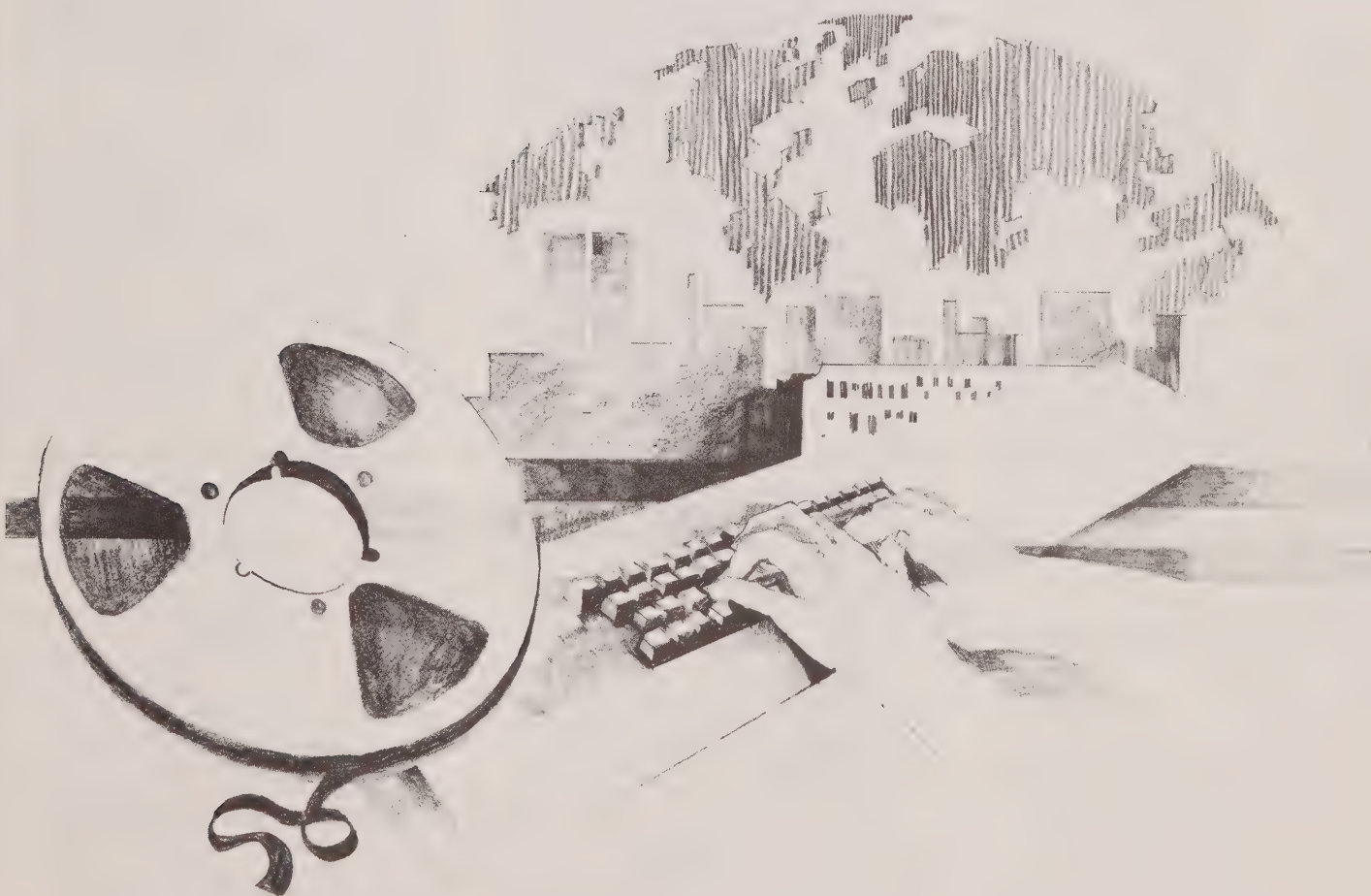
Transborder data flows: A multinational issue

by C.J. Maule

Information has travelled across borders from the time the first smoke signal was sent, or the first messenger was dispatched on foot. But now, with the simultaneous expansion of international business and the technological developments associated with computers and telecommunications, transborder data flows have emerged as an issue of world-wide concern. The ease and speed with which large volumes of data can be transmitted internationally is of interest to corporations, governments, educational institutions and individuals, all of whom participate in transborder data flows (TBDF), but much of the discussion to date has focused on corporations, and especially on multinational corporations. This article outlines the nature of TBDF, the issues that are being discussed and by whom, the actions that have been or may be taken by governments, and how these actions may affect the operations of foreign investors and multinational enterprises.

Transborder data flows can be defined as the movements across national boundaries of machine-readable data for processing, storage and retrieval. These movements involve both non-electronic means, for example, magnetic tapes, discs and punched cards, and electronic means using telecommunications facilities, although most of the discussion to date has related to electronic TBDF using computer-

communications systems. The economic, political, social and legal implications of TBDF have been discussed in international forums such as at the Organization for Economic Cooperation and Development (OECD), in the United Nations' Centre on Transnational Corporations (CTC), and in the Intergovernmental Bureau for Informatics (IBI). Because the issue relates to international trade in ser-



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vices, it is also expected to be discussed at the General Agreement on Tariffs and Trade Ministerial Meeting to be held late in 1982. Each organization has a slightly different focus: the OECD represents the developed-country viewpoint, the IBI consists mainly of Third World countries, and the CTC is a United Nations organization with a strong Third World focus. The corporate viewpoint is represented in the OECD through its Business and Industry Advisory Committee. In addition, individual countries, notably Canada and Sweden, have expressed firm views on TBDF and have participated in the discussion from an early stage.

Multinational corporations are also involved in the debate in a number of ways. They may produce the computer and telecommunications hardware and software; they may provide data processing services; they may offer access to an expanding number of machine-readable data bases; and they may engage in transborder data flows in the course of administering their organizations.

There are two main data flow types: flows between corporations, which may be called commercial, involve the purchase of data processing services and access to data bases; flows within a corporation, which may be called corporate, involve the transmission of data within a corporation for processing and access as a means of administering the organization.

Commercial transborder data flows occur when data-processing service bureaus sell their expertise to clients in other countries. Data are transmitted to the bureaus, which undertake the required processing and transmit the data back to the client. These bureaus may provide a standardized service or may develop customized software to meet the needs of individual clients. Commercial flows also occur when a customer purchases access to a foreign data base of reference or statistical information.

Examples of service bureaus include Cybernet, Sharp APL, and Tymshare. The principal computing centres of Tymshare, a fairly typical service bureau, are located in California and Texas, while its subsidiary Tymnet serves its other domestic and international customers. Tymshare offers services to corporate management in planning and development, marketing and sales management, manufacturing and production control and administrative management. Also provided are support services such as training, leasing, maintenance and systems production.

The revenues of the computer services industry in the U.S. rose from about \$2 billion in 1970 to \$8 billion in 1978 from domestic customers alone. In Western Europe revenues were more than \$5 billion in 1978: roughly 40 percent from batch processing, 25 percent from software services, 20 percent from remote computing and 10 percent from software products. Comparable Canadian statistics are not available.

In 1979, it was estimated that world-wide there were 528 reference data bases, containing 150 million records. The data bases were

Exhibit 1

Corporate Functional Activities Which May Involve Transborder Data Flows

Corporate planning and development

Economic and market simulation
Merger and acquisition analysis
Return-on-investment analysis

Financial management

Corporate, divisional, departmental, budgeting
Financial forecasting
Profit planning
Cash-flow analysis and control
Cash management
Financial modeling
Portfolio management and valuation
Tax preparation
Consolidation reporting

Marketing and sales management

Sales forecasts by product, territory and market

Market and product sales analysis
Pricing analysis
Marketing strategy development
Market and product planning
Consumer complaint tracking

Manufacturing and production control

Inventory control
Bill of materials processing
Materials requirements planning
Purchase-order tracking
Sales-order entry and invoicing

Administrative management

Personnel information systems
Contract negotiation support
Organization planning
Pension fund management and evaluation
Transportation

split almost evenly between the U.S. and other developed market economies, but 60 percent of the total data records were held in the U.S. One of the major concerns of developing countries is that access to data banks means dependence on organizations in developed countries and especially in the U.S., and at the same time that the commercial processing of data will tend to be done in the developed countries.

The multinational corporation can be seen as an information-processing organization, where one of the challenges for management is to control the parts of the organization. Clearly information is a critical ingredient for the control process. It is not surprising therefore that Raymond Vernon, a leading researcher on multinational corporations, wrote that: "For the multinational enterprise, the importance of the computer lay in the fact that the routine data needed for the direction and control of global operations could be transmitted in vast quantities and could be retrieved and regrouped with lightning speed." Corporate TBDF therefore refers to the transfer of data across borders, but within a corporation.

The reasons for corporate flows are similar to those for commercial flows. A corporation may decide that its data processing will be centralized in one or a few places rather than dispersed or distributed, or it may store data in certain locations and allow each subsidiary access to the data through a computer communications link. The corporation may also transmit data between the parts of the organization to exercise management control in the different functional areas.

The corporate activities that might involve transborder data flows, whether undertaken internally or with the assistance of service bureaus, are listed in Exhibit 1 and include planning, finance, marketing, production, per-

sonnel and general administration. It would appear that the management efficiency of corporations would improve as a result of TBDF and the use of computer communications systems, and preliminary evidence suggests that cost savings do occur in some areas, for example:

- economies in working capital from improvements in inventory management;
- economies of scale in production as a result of subsidiaries producing those product lines most suited to their environment;
- economies due to centralized purchasing; and
- reductions in exchange rate risk and improvements in overall financial management.

The concerns about TBDF are, of course, not with the cost savings due to improved efficiency, but with other effects of cross-border data transmission. These concerns are sufficiently disquieting that countries may create barriers to TBDF despite the efficiency improvements, forcing multinational enterprises to restructure their operations.

TBDF raise a mixture of economic and non-economic concerns (see Exhibit 2). The developing countries argue that they tend to export raw data to the U.S. and other developed countries for processing and storage, and therefore that information about their economies is held outside of their country in corporate networks they do not control. At the same time, because the major data banks are located in the U.S. and developed countries, the developing countries must pay to have access to their own information, and if they want the equipment required to gain access to the data banks they must import it as well.

A major concern, therefore, is that employment opportunities are lost, either because the commercial data processing is taking place in the developed countries, or because multinational corporations process their subsidiaries' data at the head office. In either case, jobs are lost. For Canada it has been estimated that 90 percent of total net transborder data flows for data processing involve data flowing from subsidiaries in Canada to foreign parent companies, mostly in the United States. A survey of 400 Canadian subsidiaries of U.S. companies in 1978 estimated that from \$300 to \$350 million of computing services was imported from U.S. parent companies, and this amount was forecast to increase to \$1.5 billion by 1985.

It has also been suggested that a related economic effect of TBDF is that developing countries are denied an opportunity to develop the skills or service industries required to support the efficient operation of their resource and manufacturing industries. Economic growth opportunities are then lost together with the opportunity to train labour for these occupations.

A second economic impact is the balance-of-payments effect that results from data being shipped abroad for processing by parent companies or by foreign data processing service bureaus. Some countries have attempted to measure the international flow of data for commercial or corporate purposes in an attempt to assess the balance of payments effects, but it has proven difficult. For one reason, the electronic computer-to-computer transmissions moving through telephone lines cannot be distinguished from normal telephone conversations.

A principal non-economic concern about transborder data flows is the issue of the protection of privacy of the information about individuals that has been stored in foreign-based computer systems. Personal files may contain a wide range of information about an individual's financial, economic, educational, welfare, business and insurance status, medical and criminal history, membership in professional associations and political and religious beliefs.

Exhibit 2

Perspective of Informatics Dependents

DIGITAL "RAW" DATA OUTFLOW

- LOSS OF GROWTH IN D.P.
 - INDUSTRY
 - PROFESSION
 - REVENUE AND TAXES

SOME INFORMATION RETRIEVAL

- LOSS OF CONTROL OVER
 - DP FACILITIES
 - DATA PROTECTION

TECHNICAL INFORMATION INFLOW

- TECHNICAL DOMINATION AND DEPENDENCY
 - INAPPROPRIATE TECHNOLOGY
 - CULTURAL CONFLICTS

MEDIA PRODUCTS INFLOW

- MEDIA COMPETITION
- LESSENED GOVERNMENT INFLUENCE

REDUCED NATIONAL SOVEREIGNTY

SOURCE: R. Turner, ed., *Transborder Data Flows: Concerns in Privacy Protection and Free Flow of Information*, Vol. 1, Report of the AFIPS Panel on Transborder Data Flows (Washington, American Federation of Information Processing Societies, 1979).

Data bases have also been compiled by governmental agencies for intelligence systems used by police forces and national security agencies. All these matters are important to individual countries, and the increase in and ease of transborder data flows merely heighten the concern that foreign governments or persons may have access to the information.

The issue of personal privacy is extended by many countries to data about corporations, industries and general economic conditions, information which has a security value to other countries. Because of TBDF, in some instances, information about basic economic

conditions within a country, for example agricultural yields for wheat or coffee, or the output of certain raw materials, may be known in a foreign country at the same time as it becomes known domestically, or may even be known first in the foreign country. Such information could be used to advantage by the foreign country in various ways for financial gain.

One example of this problem noted by developing countries is TBDF which result from remote-sensing facilities. Satellites equipped with earth-resource sensors can collect data about the earth and its environment and communicate them to different parts of the world. At present remote sensing is being applied to agriculture, forestry, geology and natural resources, hydrology and water resources, urban planning, oceanography and marine resources, and meteorology. The recipients of these data are again at an advantage by having the information before other users do.



The impact of TBDF on the organization of multinational enterprises has been a particular point of enquiry. Will TBDF lead to greater centralization or decentralization of managerial control? Will subsidiaries be given more or less autonomy? In the event that they have less autonomy, then this would run counter to some of the benefits which host countries feel that they obtain from foreign investment. The U.N. Centre on Transnational Corporations has expressed the view that TBDF will lead to greater centralization of control, and a number of case studies undertaken on multinational firms operating in Italy, the U.S. and Canada arrive at the same conclusion.

An opposing view is that the increasing use of equipment which allows for distributed data processing will permit subsidiaries to undertake more functions and thereby gain more control over their operations. A distinction has to be made here between routine data processing work on payroll and accounts receivable and payable, which may well take place in the subsidiary, and the transfer of information required to make key managerial decisions concerning sourcing, production, marketing and financing, which is still likely to be centralized.

The overall concern of host countries is to balance the positive aspects of TBDF due to increased corporate efficiency, against the negative aspects associated with employment and balance of payments effects, personal and commercial privacy, national security and subsidiary autonomy. Among other things, an OECD report concluded that:

- The use of international data transmission has produced substantial financial benefits to large multinational companies, airlines and banks.
- The benefits have been achieved by using company resources more efficiently. Efficient use of resources has been made possible by sophisticated data communications networks.
- Many of the companies that have taken advantage of the benefits of international data transmission, the world's airlines for example, have radically changed their operations, to the point that they are dependent on the continued reliability of the service.

This report highlighted the fact that TBDF are a critical ingredient for certain industries, such as airlines, banking, and insurance, which require instant on-line access to information on a worldwide basis. Other industries which have an equal interest in TBDF are radio and television broadcasting and newspaper publishing. These industries were the topic of a recent UNESCO report entitled *Many Voices, One World: Towards a New More Just and More Efficient World Information and Communications Order*.

International investors will be aware that the concern over TBDF has led to a number of actions being taken nationally or internationally. Some Canadian concerns have been expressed in a report entitled *Telecommunica-*

tions and Canada published by the Government of Canada in 1979. The implications of TBDF for Canadian sovereignty are wide-ranging, and the report noted that greater use of foreign computing services and growing dependence on them could:

- reduce Canadian control over disruptions in service resulting from technical breakdowns or work stoppages;
- reduce Canadian power to ensure protection against events such as invasions of personal privacy and computer crime;
- lead to greater dependence on foreign computing staff, which in turn would limit development of Canadian expertise, human and technological resources, and systems specifically geared to Canadian requirements;
- jeopardize the exercise of Canadian jurisdiction over companies operating in Canada which store and process their data abroad;
- undermine the telecommunications system in Canada by the use of foreign communications satellites and roof-top receiving antennas for the importation of data into Canada;
- risk publication of information that is confidential in Canada;
- give access to Videotex services based on foreign databanks emphasizing foreign values, goods, and services; and
- facilitate the attempts of the government of the U.S. to make laws applicable outside U.S. territory.

Exhibit 3

National Data-Protection Provisions in Developed Market Economies, March 1981

Country	Nature of action
Austria	Law
Belgium	Draft legislation
Canada	Law, Legislation in parliament
Denmark	Law
France	Law
West Germany	Law
Iceland	Draft legislation
Luxembourg	Law
Netherlands	Draft legislation
New Zealand	Law
Norway	Law
Portugal	Constitutional provision
Spain	Constitutional provision
Sweden	Law
United States	Law, Legislation in parliament

SOURCE: Adapted from Transnational Data Report, 4 (Washington: January and March 1981).

An interdepartmental task force was set up by the Government of Canada to study the issue. Among others, represented on the committee are the Foreign Investment Review Agency, and the departments of Communications, External Affairs, Regional Industrial Expansion, and Justice. Similar concerns have been raised by other countries, although the emphasis may differ from country to country. Individual governments of developed countries have taken a range of actions, from constitutional provisions to laws and the preparation of reports that deal with privacy concerns and TBDF in one way or another (see Exhibit 3).

Actions have also been taken internationally. The OECD issued "Guidelines Governing Protection of Privacy and the Transborder Flow of Personal Data" (September 23, 1980) and the Council of Europe adopted a "Convention for the Protection of Individuals with Regard to Automatic Processing of Personal Data" (September 18, 1980). The OECD statement stresses the need to balance the desirability of the free flow of information with the protection of individual privacy. The Council of Europe statement emphasizes personal privacy considerations.

In the case of non-personal transborder data flows, according to the Centre on Transnational Corporations, about 60 countries have issued some official statement. These statements deal mainly with the procurement and use of data processing equipment and in this way touch on TBDF. In one extreme example, government permission is required for use of international data transfer systems. In that country approval has been granted in the case

of airline reservation and demonstration systems, but denied in the case of time-sharing services, use of foreign data banks, and systems related to the operations of certain types of foreign affiliates.

Senior executives of multinational enterprises have also recognized the need to discuss the issue. For example, in November 1979, a seminar on TBDF was sponsored by the U.S. Council of the International Chamber of Commerce, and addressed by executives from Associated Press, IBM, American Express, Control Data Corp., General Mills Corporation, Merck & Co., and Chase Manhattan Bank. As another example, in 1979 a New York consulting firm, McCaffery, Seligman and von Simson Inc. undertook a study of the actual transborder flows of data in 11 major North American companies. This study examined the issue in relation to production scheduling and coordination, financial systems, engineering systems, purchasing and customer systems, and payroll and personnel systems. The importance of TBDF was found to vary widely between each area, so that any restriction on the flow of international data would not cause a uniform burden on all functions or on all companies. The conclusions with regard to possible restrictions were that:

- The transborder flows of production and engineering data are critical. Restrictions would require relocating and re-equipping industrial plants and seriously hamper corporate planning and management.
- The transborder flows of accounting information could be accomplished with less sophisticated technology (public Telex or mail), although serious problems of timeliness and accuracy would probably develop.
- Transborder data flows for information about individuals (employees or customers) are insignificant for most large U.S. multinational industrial and consumer companies. Record systems that contain information on individuals are usually processed on a local basis.

The impact of restricting transborder data flows on multinational enterprises and on countries is not yet well understood. Available case studies suggest that the effect of restrictions is uneven, and depends on industry and firm-specific factors. Certain information-intensive service activities such as banking, insurance, airlines and tourism, and the operations of the mass media would be most seriously affected by restrictions. Other firms would likely have to reorganize certain functional activities, which could have cost implications. One aspect of the issue seems clear, and that is that host countries are sensitive to a wide range of issues associated with transborder data flows, and as the need arises will address these issues in their dealings with foreign investors.



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Foreign Investment in Canada: What's the Score?*

by Herbert C. Byleveld

While the 1970s saw a remarkable net influx of foreign long-term capital, early indications are that the 1980s may see great swings in both inflow and outflow of investment.

The role of foreign capital in Canada's economic development has been a hardy perennial in public discussions for several decades and the 1980s are unlikely to be an exception. Much discussion has taken place on the various foreign investment policies, either in force or contemplated, but there has been less done on setting out the conceptual complexities and the statistical framework of current and past trends in foreign investment. These are the prerequisites of informed debate and thus, indirectly, the prelude to judicious policy making.

Foreign investment may refer to short- and long-term capital. We deal essentially with the latter here. Data on foreign long-term capital in turn may specify flows — cross-border movements over a *period* of time, as recorded on the balance of payments — or identify the book value of a cumulative stock of foreign long-term capital in Canada at a *specific* time. The book value is also referred to as the foreign investment position and is usually measured at the end of each year.

Such balance sheet data take a long time to collect and process and hence are published with a delay of several years. Accordingly, they are often neglected in public discussion, while up-to-date data regarding capital flows catch the headlines, although they tell only part of the story, as we shall see.

Both foreign capital flows and the book value measured at a specific time may comprise *direct* investment, provided by investors with some voice in the management of the recipient companies ("direct investment enterprises," in official statistics), as well as *portfolio* capital, supplied by those primarily interested in revenue or capital appreciation. Our analysis disregards a relatively smaller third category of miscellaneous foreign investments, such as securities, mortgages or other assets held for non-residents by trustees or agents. These conceptual distinctions are made meaningful by putting numbers on them, starting with foreign direct investment (FDI) in the 1970s, as background to the current situation.

Net inflows of FDI

The 1970s were a remarkable period for the net influx of foreign direct capital. In the first half of this decade it totalled more than \$4 billion, the highest amount ever reached in any five-year period. In contrast, during 1975-79,

cross-border net flows of direct investment into Canada dropped below \$1.75 billion, the lowest five-year total on record since 1950.

Several reasons have been advanced for this decline. In 1975, the June 23 budget suspended the withholding tax on medium- and long-term corporate obligations (this measure is still in force). This concession, mostly to foreign institutional investors, has indirectly encouraged Canadian firms to meet a larger part of their capital requirements through medium- and long-term debt instruments. Moreover, 1975 was the first full year in which the first phase of the Foreign Investment Review Act was in effect, providing for screening of foreign takeovers of Canadian firms. Finally, the 1975-79 period saw a significant Canadian repatriation of foreign-owned firms or assets in the oil and gas and mining sectors (e.g., Atlantic Richfield Canada and Pacific Petroleum by Petro-Canada, the expropriation of potash mines by Saskatchewan). The resulting outflow of funds to pay for these Canadianized assets formed a partial offset to the inflow of foreign direct investment, which on a net basis, however, remained positive in nearly every year and for the 1975-79 period as a whole.

Swings in foreign direct investment in the 1980s may be even more marked than in the past decade. The year 1980 started with a net inflow of nearly \$600 million, nothing unusual. But 1981 showed an unprecedented *net outflow* (return flow) of foreign direct capital exceeding \$5 billion. In nominal or current dollar terms, this outflow is more than five times as large as the highest annual net direct inflow on record, which occurred in the early 1970s and approached \$1 billion.

In comparing distant years, however, such nominal data should be interpreted with caution: a million 1981 dollars is, in terms of purchasing power, worth somewhat less than half of the same sum in 1971. In real terms, the 1981 outflow would therefore represent close to \$2.25 billion when expressed in 1971 dollars, using the Gross National Product (GNP) deflator for business fixed capital formation as

a yardstick for the rate of inflation over this decade.

Secondly, there have been special reasons for this large net return flow of foreign capital here in 1981. The introduction of the National Energy Program (NEP) in October 1980 provided Canadian-controlled enterprises with substantially greater incentives to explore and develop domestic oil and gas resources than are now available to enterprises controlled by non-residents. Subsequently, several massive takeovers of foreign-controlled subsidiaries by Canadian companies occurred last year. The largest transactions included — in approximate order of magnitude — the takeover of the Hudson Bay Oil and Gas Company Ltd. by Dome Petroleum, of Petrofina by Petro-Canada, of the Aquitaine Company of Canada Ltd. by the Canada Development Corporation, of a share in Suncor by the Ontario Energy Corporation, of Sulpetro Limited by CanDel Oil, and several others.

Thirdly, foreign direct investment expands through earnings retained by Canadian subsidiaries. While not recorded on the balance of payments, it is an important growth factor, which will now be considered.

FDI position

An increase in the book value of foreign direct investment in Canada can come about in three ways:

- 1) through a net capital inflow of direct investment from abroad, as discussed above;
- 2) through earnings retained by a Canadian subsidiary in Canada (a factor stressed in the 1972 Gray report¹); or
- 3) through "other factors", such as a revaluation of the book value of FDI when Canadian owners acquire foreign-owned firms or assets at prices higher than their historic book value.

When the usual net inflow under 1 turns negative, as in 1981, the total book value of FDI in Canada may still increase, if items 2 and 3 are sufficiently positive.

Although recent data are not yet available, a rough "guesstimate" of item 2 suggests that the net increase in undistributed earnings in 1980 may have added about \$4.5 billion to the book value of foreign direct investment and in 1981 some \$4 billion.

As regards number 3, there have been several substantial takeovers of foreign-owned subsidiaries by Canadian buyers in 1981, causing both a return flow of foreign funds under 1 and an offsetting increase through revaluation of the FDI in place in Canada under 3. As a working hypothesis, the offset might be put at some \$3 billion.

Because of factors 2 and 3, it is thus conceivable that the foreign direct investment position in Canada at the end of 1981 was still higher than the year before, in spite of the huge net outflow of more than \$5 billion on the balance of payments under factor 1.

* This article first appeared in the Summer 1982 issue of The Canadian Business REVIEW, published by the Conference Board of Canada.

Relative importance of FDI

Canadian concern about foreign direct investment seems to have ebbed and flowed with its relative importance in the total position of foreign capital in Canada. In the early postwar years, the need to find jobs for the returning "boys overseas", the fear of a postwar recession and later the post-Korean resource boom encouraged an open-door policy toward foreign direct investment, which rose to over half of all long-term capital inflows from abroad in the 1950s. Numerous takeovers of Canadian firms by foreign interests gradually raised concern, however, and in 1957, the Royal Commission on Canada's Economic Prospects (the Gordon Commission) recommended a foreign investment policy that would "see a larger share of foreign capital invested in the form of bonds and mortgages, which do not involve control of large sectors of the economy."

For some twenty years, this did not happen. Until the early seventies, the share of FDI stayed high, often just a sliver below 60 percent, and this ratio persisted until 1974. Since then, however, the upsurge of portfolio investment has cut back the reported share of FDI, which dropped to 51 percent by 1978 when calculated on the traditional basis.

In fact, a new definition of foreign direct investment, now used by both Statistics Canada and the International Monetary Fund in Washington, shows that the book value of FDI by the end of 1978 was only 47 percent of total foreign long-term investment in Canada (\$48 billion out of \$102 billion). The new definition eliminates from FDI some funds originating in the "country of control" that are closer to portfolio investment and are now so classified. Not only is the new definition of the stock of direct investment logically more precise, it also ties in with the FDI flows in the official balance of payments statements.

The old data are still useful as approximate indications of long-term trends over the post-World War II period. As regards the more recent past, the practical significance of the revised data is their disclosure that FDI by the late 1970s accounted for less than half of total long-term capital in place in Canada. Prior to the availability of this data it had been believed that this situation would only emerge some time in the 1980s.

Inflows of portfolio capital

A different and more complete picture emerges if one considers, along with foreign direct investment, the net inflows into Canadian corporations of foreign capital in portfolio form. From 1970 to 1974, corporations received from abroad through new issues of bonds and debentures (net retirements) some \$700 million. In the second half of the decade (1975-79), this influx of foreign capital into Canadian businesses soared to \$7.5 billion. Smaller amounts were added by net new share issues.

Table 1
Foreign Long-Term Capital Investment in the Private Sector
(millions of dollars)

	1970-74	1975-79	1980	1981
Cross-border flows				
Net direct investment ¹	4,125	1,660	585	-5,300
Net new bond issues	700	7,420	1,420	3,500
Net new stock issues	125	380	465	320
Subtotal	4,950	9,340	2,470	-1,480
Earnings retained in Canada by foreign-controlled subsidiaries	8,600	17,000	4,500 ²	4,000 ²
Total (approximate)	13,550	26,350	7,000	2,500

¹ Excludes substantial borrowings by various levels of government and their enterprises. For instance, federal and provincial enterprises (predominantly the latter) attracted an inflow of some \$1,600 million in 1980 and some \$3,800 million in 1981 through net new bond issues from abroad.

² Preliminary entries by author based on incomplete information.

Source: Statistics Canada

Comments on the 1970s

Table 1 combines the data regarding direct and portfolio investment discussed above. The variety of diametrically opposed conclusions that can be derived from a one-sided reading of this table is striking. To start with the 1970s, the statement that the flow of foreign capital into Canadian industry has declined greatly during the decade is correct only if the concept is limited to net direct investment flows and if the early and late 1970s are compared. Such a conclusion would be reached from the cross-border flows of net direct investment, which show a decline by nearly \$2.5 billion from over \$4 billion in 1970-74 to less than \$1.75 billion in 1975-79. The decline in real terms would be even greater if inflation were taken into account.

On the other hand, looking at net new bond issues abroad by Canadian business, foreign capital entered Canada at the unprecedented rate of well over \$7 billion in the period 1975-79 against a moderate \$700 million in the first part of the decade. Along with net new share issues, this raised the total cross-border flows of foreign capital (direct plus portfolio) destined for the private sector from less than \$5 billion in the early 1970s to more than \$9 billion in the late 1970s (see subtotal in Table 1).

The "stay-put" type of foreign capital — the earnings retained in Canada by foreign subsidiaries — do not appear in Canada's balance of payments, but they are an injection of foreign-owned funds nevertheless. In current dollars, they rose from over \$8.5 billion in the early 1970s to some \$17 billion in the 1975-79 period. In the United States such retained earnings are included in their balance of payments estimates. The total of foreign capital inflows into the private sector then becomes

approximately \$13.5 billion in 1970-74 and over \$26 billion in 1975-79, measured in current dollars.

To be meaningful, however, this upsurge of foreign capital flowing into Canada during the 1970s must be evaluated against the change in size of the Canadian economy over the same period as measured by GNP. Both statistical series were affected by accelerating inflation during the period, and thus the ratio of one to the other (see bottom row) is probably the most significant figure to watch in Table 2.

The bottom line shows that the supply of foreign-owned long-term capital to the Canadian private sector matched the growth in the GNP from the first to the second half of the latest decade; the ratio was about 2.5 percent in both periods of the 1970s. Numerically, foreign capital flows into industry became neither more nor less important in the Canadian economy over the last decade. This is certainly true in current dollars, and if one assumes that inflation affected national output and the various industrial recipients of foreign-owned capital in about the same way, then it would be true in real terms as well.

Comments on the 1980s

It would be hazardous to make any prognosis for 1980-84 on the basis of the first two years, which already show considerable divergence, especially in net direct investment flows as shown in Table 1. Adding in net new corporate bond and share issues, the total shows an inflow of \$2.5 billion into the private sector in 1980 and an outflow of \$1.5 billion in 1981.

The year 1981 was certainly unusual by past standards and dominated the 1980-81 totals. The combined foreign long-term capital

Table 2
GNP Compared to Foreign Long-Term Capital Flows
into the Canadian Private Sector
(billions of dollars)

	1970-74	1975-79	1980-81
Foreign long-term capital flows into private sector	13.6	26.3	9.5
Cumulative GNP over 5-year period (for 1980-81 a 2-year period)	556.5	1,055.2	617.2
Foreign long-term capital as % of cumulative GNP	2.4	2.5	1.5

Source: Statistics Canada

investments in the private sector in Canada for 1970-74, 1975-79 and 1980-81 are shown in the bottom row of Table 1 and are transposed to Table 2 as the top line. According to the cumulative GNP for these periods, the supply of foreign long-term investment capital matched the growth in GNP during the two five-year periods of the 1970s (2.5 percent). But the 1980-81 ratio dropped to 1.5 percent in 1981-82, largely because of the events of 1981. In other words, it was only last year that earlier talk about shrinking net inflows of foreign capital in the Canadian economy received some support from comprehensive statistical evidence. In acknowledging this much, it is nevertheless enlightening to make a distinction between two different capital flows that are concealed in summary statistics showing the dominant "mainstream" only. Foreign direct investment flowing into Canada in 1981 taken as a separate "undercurrent" amounted to over \$2 billion and was actually higher than the comparable figure for 1980. What produced the negative entry (or net outflow) of \$5.3 billion, shown in Table 1 as a net direct investment, was a strong "counter-current" or return flow of about \$7.5 billion of foreign direct investment from Canada. This occurred through the repatriation of previously foreign-controlled companies or assets in Canada — in other words, through takeovers or of significant participations in foreign-controlled firms here by public or private Canadian entities in 1981. To put it arithmetically: \$2.25 billion inflow minus \$7.5 billion outflow on the entry "foreign direct investment in Canada" becomes \$5.25 billion outflow.

Much of this return flow (through repatriation) of foreign direct investment in Canada occurred in the energy sector, as illustrated earlier. One of the objectives of the government's National Energy Program is a greater Canadian private and public presence in the production of oil and natural gas; in practice, this would at least in part imply takeovers of foreign firms or major participations in their activities.

Noteworthy in the non-energy sector is the takeover of the Canadian International Paper

Company Ltd. by Canadian Pacific Enterprises from International Paper in New York on October 1, 1981 — a transaction exceeding \$1 billion.

At this point, it is necessary to turn to another set of direct investment flows on the balance of payments, those under "Canadian direct investment abroad." Here the principal actors are head offices of Canadian firms acquiring or disposing of assets abroad. While it is statistically possible to add the two entities together, thus producing a "double net" figure, analytically they should be probed separately.

Direct investment abroad

Investments abroad made by Canadian firms advanced from \$2.5 billion in the first half of the 1970s to \$6.75 billion in the second half of the decade. In 1980, the outflow amounted to \$2.75 billion, and it rose to nearly \$5 billion in 1981. The latter figure represents mostly further investments in existing Canadian subsidiaries abroad, the remainder being new takeovers during the year.

Whether this trend should be a matter of concern depends in part on the reasons for such outflows, which are influenced both by domestic and foreign economic conditions and opportunities.

The growth of Canadian direct investment abroad may well be associated with the rise of Canadian corporations to international status and the relatively small size of the Canadian market.

The direct investment flows in 1981 were highly unusual, however. If one adds up the extraordinary net return flow on foreign direct investment account (over \$5 billion) and the net outflow of Canadian direct investment abroad (nearly \$5 billion), there has been a "double net" outflow of some \$10 billion on the two direct investment entries of our capital account for the reasons mentioned. The bunching of transactions has put pressure on the Canadian dollar, while causing concerns about inflationary pressures and rising external debt service burdens.

In view of these considerations, the Minister of Finance on July 29, 1981, requested a number of the larger Canadian banks to substantially reduce those lending activities in which the proceeds were converted to foreign currencies and used to finance takeovers of foreign companies abroad or in Canada.

How to interpret the events of 1981? As the National Energy Program's specified Canadianization objective does not exceed 50 percent of Canadian ownership of the oil and gas industry (in terms of upstream production revenues), the large net return flows on the foreign direct investment account of 1981 should perhaps be seen as part of some unusual transitional steps in the pursuit of this new equilibrium, rather than as a continuing trend. In fact, while the Minister of Finance in July 1981 specifically exempted loans for NEP Canadianization purposes from his request, he added that the process of Canadianization was proceeding rapidly and "some slowing of this pace would be therefore quite consistent with the energy policies of the government."

To review, the Minister of Energy, Mines and Resources noted last May that the percentage of the Canadian oil and gas industry owned by Canadians had already progressed from 28 to 35 percent of upstream production revenues. Regarding takeovers, the Canada Development Corporation, which acquired Aquitaine Canada and the Canadian assets of Texasgulf Inc. last year, announced in its recent annual report that it did not plan to make any significant acquisitions in the next two or three years. It should also be considered that takeovers would not be the only way to make further progress toward the long-term goal of 50 percent Canadian ownership in the oil and gas industry. It could also be promoted to the extent desired through relatively faster growth of Canadian-owned companies as a result of incentives offered in the legislation.

With all the one-sided attention paid to the exceptional outflows of direct investment capital from Canada, it has often escaped notice that the total inflow of long-term capital from abroad has not changed at all in 1981. It was some \$1.25 billion, the same as the year before. This was largely due to a flood of net new bond issues, which raised more than \$10 billion abroad. It is the nature of the long-term capital inflow that is changed rather than the total volume.

On the whole then, there has not been a decline in the inflow of long-term capital into Canada in 1981. If one also considers substantial inflows on the account of short-term capital, there has, on the contrary, been a significant increase in the total net foreign capital inflow.

¹ Foreign Direct Investment in Canada, published by Information Canada, Ottawa, 1972, 523 pp. This report, prepared by a task force under the Honourable Herb Gray, explored the determinants and impact of foreign direct investment, considered policy implications and prepared the way for the Foreign Investment Review Act of 1973.

Capital investment projects in Canada

Electric power, oil and gas, and mining

A decline in planned capital investments reflects the sluggishness of the Canadian economy over the past year or more. A number of large projects have been cancelled outright; others have been trimmed or deferred. According to Statistics Canada, capital spending in 1982 will actually be more than 7 percent less than forecast at the beginning of the year. Considering inflation, that means that there may be a real decline from the 1981 level although in nominal terms planned investment may be more than 2 percent higher than 1981 levels.

This list shows major capital spending projects now in progress or firmly committed in the electrical power, oil and gas, and mining sectors. Only projects costing more than \$10 million are included. Major projects planned but subject to government approval are not included. Information has been obtained from press reports. This report was prepared by the staff of the Foreign Investment Review Agency with the assistance of the Economics Department of the Bank of Nova Scotia.

Company and project description		Completion date	Cost (\$ million)	Location
British Columbia				
Electric power				
B.C. Hydro and Power Authority	hydro	1984	1,700	north of Revelstoke
Transmission line		1983-84	1,000	mainland to Vancouver Island
Oil and gas				
Chevron Canada Ltd.				
Refinery improvements		1982	13	Burnaby
Shell Canada Ltd.				
Expansion, refinery		1982	50	Burnaby
Mining				
Alcan Aluminium Ltd.				
Carbon paste plant		1983	68	Kitimat
B.C. Coal				
Coal mine		1983	282-335	Sparwood
Bethlehem Copper Corp. and Valley Copper Mines Ltd.				
Copper, molybdenum and precious metals mine		1983	18	Highland Valley area
Cominco Ltd.				
Electrolytic and melting plant		1982	210	Trail
Upgrade sulphur gas handling systems		1983	48	Trail
Modernize sulphide leaching plant		1985	n.a.	Trail
Fording Coal Ltd.				
Expansion, coal mine		1982	115	Elkford
Gibraltar Mines Ltd.				
Copper mine		1984	76	Williams Lake
Noranda Mines Ltd.				
Copper-zinc-sulphur mine		1982	23	Buttle Lake
Quintette Coal Ltd.				
Coal mine		1983-85	850	Peace River area
Shell Canada Resources Ltd.				
Coal mine		1982	340	Sparwood area
Teck Corp. Ltd.				
Coal mine		1983	280	Peace River area
WestCoast Transmission Co. Ltd.				
Expansion, sulphur recovery plant		1982	10	Fort Nelson
Westmin Resources				
Zinc-copper-lead-precious metals mine		1982	23	Buttle Lake
Alberta				
Electric power				
Edmonton Power	thermal	1986-87	760	Genesee
Trans Alta Utilities	thermal	1984	1,200	Keephills
Transmission system		1983	n.a.	Keephills to Edmonton
Trans Alta Utilities and Alberta Power Ltd.	thermal	1985-86	750	near Hanna

Oil and gas

Alberta Natural Gas Ltd. Ethylene extraction plant expansion	1982	70	Cochrane
Chieftan Development Corp. and Texas Resources Ltd. Gas processing plant	1982	21	Hythe area
Dome Petroleum Ltd. Expansion, gas processing plant	1982	12	Willesden Green field
Gas processing plant	1982	12	Cutbank field
Foothills Pipe Lines (Yukon) Ltd. Prebuild section, Alaska Highway pipeline	n.a.	600	James River Junction to Monchy, Saskatchewan
Gulf Canada Ltd. Expansion, refinery	1983	245	Edmonton
Gulf Canada Resources Ltd. Gas production facilities	1982	15	near Edson
Processing plant	1983	250	near Edson
Hudson's Bay Oil and Gas Co. Ltd. Gas processing plant	1983	70	West Pembina area
Husky Oil Ltd. Expansion, heavy oil refinery	1982	55	Lloydminster
Imperial Oil Ltd. Expansion, refinery	1983	300	Edmonton
Pan Canadian Petroleum Ltd. Gas processing plant	1982	10	Carseland field
Shell Canada Ltd. Modernization, expansion, gas processing plant	1983	60	Jumping Pound gasfield
Expansion, gas processing plant	1982	20	Waterton
Refinery/petrochemical complex	1984	1,400	Scotford
Suncor Inc. Experimental bitumen project	1984	88	Cold Lake

Mining

Cardinal River Coals Ltd. Coal mine	1983	n.a.	Hinton area
Gregg River Coal Ltd. Coal mine	1983	215	Hinton area
Luscan Sterco (1977) Ltd. Expansion, coal mine	1984	n.a.	Edson
Union Oil Company of Canada Ltd. Coal mine	1984	300	Hinton area

Saskatchewan**Electric power**

Saskatchewan Power Corp.	thermal	1982	170	Coronach area
Nipawin	hydro	1986	505	Nipawin

Oil and gas

Federated Co-operatives Ltd. Refinery expansion	1983	25	Regina
TransCanada Pipelines Ltd. Pipeline	n.a.	218	Alberta to Eastern Canada

Mining

Cluff Mining Uranium mine (Phase II)	n.a.	100	Cluff Lake
Key Lake Mining Corp. Uranium mine-mill	1983	563	Key Lake
Potash Corporation of America Expansion, potash operation	1982	30	Saskatoon area
Potash Corporation of Saskatchewan Ltd. Expansion, potash mine	1984	430	Lanigan

Manitoba

Electric power

Manitoba Hydro				
Generating station	1989	2,500	Limestone, Nelson River	
Rehabilitation, generating station	1983	35	Great Falls	
Rehabilitation, generating station	1983	25	south of Seven Sisters	

Mining

Hudson Bay Mining and Smelting Co. Ltd.				
Copper-zinc mine	1982	28	Flin Flon area	
Copper-zinc mine	1983	16	Flin Flon area	
Copper-zinc mine	1983	14	Snow Lake area	
Zinc casting plant	1982	10	Flin Flon area	
Inco Ltd.				
Nickel mine	1985	72	Thompson	

Ontario

Electric power

Great Lakes Power Co. Ltd.	hydro	1982	113	Sault Ste. Marie
Ontario Hydro	thermal	1984	630	Atikokan
	nuclear	1983	3,600	Pickering
	nuclear	1983-1987	5,500	Bruce
	nuclear	1988-90	6,700	Darlington

Oil and gas

Imperial Oil				
Oil processing plant renovation		1983	100	Sarnia
Suncor Inc.				
Heavy oil upgrader	n.a.		335	Sarnia
TransCanada Pipelines				
Pipeline		1982	450	North Bay to Morrisburg

Mining

Amoco Canada Petroleum Co. Ltd., Dome Mines, and Campbell Red Lake Mines				
Gold mine		1983	146	Detour Lake
Denison Mines Ltd.				
Expansion, uranium mines		1985	250	Elliot Lake
Dickenson Mines Ltd.				
Expansion, renovation of gold mine		1983	25	Red Lake area
Dome Mines Ltd.				
Expansion, modernization gold mine		1984	92	Timmins
Domtar Inc.				
Expansion, rock salt mine		1982	35	Goderich
Eldorado Nuclear Ltd.				
Uranium refinery		1983	152	Blind River
Uranium conversion plant		1983	106	Port Hope
INCO Ltd.				
Cobalt refinery		1983	24	Port Colbourne
Mattabi Mines Ltd.				
Zinc-copper mine		1984	26	Sturgeon Lake
Rio Algom Ltd.				
Reactivation of uranium mine		1983	243	Elliot Lake
Willerooy Mines				
Gold mine		1985	30	Kirkland Lake area

Quebec

Electric power

Hydro-Québec	hydro	1986	600	Manicouagan River (north of Baie Comeau)
	nuclear	1983	1,360	Gentilly
Substation, transmission line		1986	150	Sherbrooke to New Hampshire or Vermont
Société d'énergie de la Baie James	hydro	1985	1,500	James Bay area

Oil and gas

Gaz Inter-Cité Québec Inc. Gas distribution system	1991	500	Trois-Rivières, Québec City and other points east of Montreal
Gaz Métropolitain, Inc. Expansion, gas distribution system	1982	150	Montreal and east of Montreal
Golden Eagle Canada Ltd. Upgrader and ancillary equipment	late 1983	200	St-Romuald
Imperial Oil Ltd. Upgrading, pollution abatement	1983	21	Montreal
Heavy fuel upgrading	n.a.	61	Montreal
Petro-Canada Ltd. Upgrader	1982	35	Pointe-aux-Trembles
CANMET upgrader	1984	117	Montreal East
Shell Canada Ltd. Upgrader	n.a.	30	Montreal
Oil recycling plant	1983	12	Montreal
TransQuebec & Maritimes Pipeline Inc. Pipeline	1984	1,000	east from Montreal

Mining

Agnico-Eagle Mines Ltd. Gold mine	late 1983	12	Joutel Township
Long Lac Minerals Ltd. Gold mine-mill	late 1982	21	Cadillac-Malartic area
Les Mines Seleine Inc. Salt mine	fall 1982	66	Magdalen Islands
Noranda Mines Ltd. Oxygen plant	late 1982	35	Noranda
Expand zinc reduction plant	early 1983	35	Valleyfield
Société Nationale de l'Amiante Magnesium compounds plant	spring 1983	14	Thetford Mines area

Atlantic Region**Electric power**

Lower Churchill Development Corp.	hydro	n.a.	4,500	Muskrat Falls, Nfld.
Newfoundland and Labrador Hydro Commission	hydro	1982	155	Upper Salmon River, Nfld.
Newfoundland Light and Power Co. Ltd. Various projects		n.a.	34.5	Newfoundland
Nova Scotia Power Corporation	thermal	1984	160	New Waterford, N.S.
Nova Scotia Tidal Power Corp. Demonstration project		1983	50	Bay of Fundy, N.S.

Oil and gas

ICG Brunswick Gas Ltd. Gas distribution system		1992	420	33 N.B. communities
TransQuébec and Maritimes Pipeline		n.a.	800	New Brunswick, Nova Scotia

Mining

Cape Breton Development Corp. Coal mine development		1983	70	Prince mine, N.S.
Transportation, coal-handling		n.a.	58	near Glace Bay, N.S.
Coal preparation plant		1982	23	Victoria Junction, N.S.
Denison-Potacan Potash Co. Potash mine		1984-85	190	near Salt Springs, N.B.

Yukon and Northwest Territories**Electric Power**

Northern Canada Power Commission Hydro plant expansion		1984	53	Whitehorse Rapids, NWT
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Oil and gas

Interprovincial Pipe Line (NW) Ltd. Pipeline		1985	576	from Norman Wells, NWT
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Mining

Cominco Arsenic trioxide treatment plant		1982	14	Yellowknife area
Cyprus Anvil Mining Corp. Lead-zinc mines, modification of mill		1985-88	170	Faro, YT

Provincial incentives

In an effort to attract new investment and industry, Canada's provincial governments have developed a range of programs designed to provide professional, technical and financial services to both foreign and Canadian firms. These incentive programs vary from province to province according to their economic vocation, industrial structure and priorities. In addition to providing technical assistance, such as the information and advisory services offered usually by their departments of industry and commerce, several provinces have created economic development corporations which offer financial assistance in the form of subsidies, loan guarantees and participation in share capital. Other provincial corporations work with industry to take advantage of certain market opportunities. All these provincial incentives should be considered together with the federal government's programs and services. The latter were described last in volume 4, number 2 of the *Review*.

Newfoundland

"Energy" could become a key word in Newfoundland's future economic vocabulary. The province has already harnessed enormous reserves of hydro-electric power. In addition, several years of intensive offshore oil exploration have produced some very promising results. Currently, however, the cornerstones of the province's economy are fishing, pulp and paper and mining, particularly iron ore. Uranium and gold have also been found. Newfoundland has a limited manufacturing sector in electronics and food and beverages. The province's scenic beauty and unique folklore have made it the site for the development of a significant tourist industry.

Newfoundland and Labrador Development Corporation Limited

The corporation assists small- and medium-sized business enterprises in the primary and manufacturing sectors to carry out capital projects not exceeding \$2.5 million by lending up to 80 percent of the total capital costs for up to 15 years at the prevailing interest rate. The corporation can provide up to 49 percent of equity requirements with holdings to be in the form of preference shares.

To encourage the secondary and final processing of fish and fish products, the corporation provides loans, interest free for the first two years if principal repayment is within program guidelines, for the purchase of suitable machinery and equipment approved by the corporation. **Contact:** Newfoundland and Labrador Development Corporation, P.O. Box 1738, 44 Torbay Road, St. John's, Newfoundland, Canada A1C 5P5.

Department of Development

The department has a market and product development program for assisting Newfoundland companies which plan to market goods or services outside the province or within the province in order to substitute for goods and services being imported. A capital assistance program provides conditional grants to new

or expanding ocean manufacturing industries and ocean service industries. The grants are for 50 percent of the approved capital cost of the project, to a maximum of \$50,000. **Contact:** Department of Development, P.O. Box 4750, St. John's, Newfoundland, Canada A1C 5T7.

To encourage manufacturing business enterprise to reduce the need for imported goods and to secure sales of provincially manufactured goods outside the province, an exemption from retail sales tax for capital investment in machinery and equipment is available. These exemptions will be jointly managed by the Departments of Development and Finance.

As a further boost to small business, the sawmilling industry is exempted from retail sales tax for capital equipment expenditures made by sawmill operators and used directly in their manufacturing process. This exemption does not apply to the pulp and paper industry.

Department of Rural Development

The department offers rural development authority loans to encourage the development of small resource-based industries. It provides low-interest loans of up to \$25,000 for the purchase of land or buildings, the construction or renovation of buildings, the purchase of machinery and equipment, and for working capital for start-up or expansion.

The department also offers development grants as follows:

- (1) 50 percent of the capital cost up to \$25,000 for the establishment, expansion or modernization of manufacturing or processing facilities. Maximum grant \$12,500.
- (2) 50 percent of the capital cost up to \$60,000 for the establishment of industries utilizing primary resources. Maximum grant \$30,000.
- (3) 50 percent of the capital cost up to \$30,000 for the expansion or modernization of industries utilizing primary resources. Maximum grant \$15,000.
- (4) 75 percent of the approved cost up to \$10,000 for the research and develop-

ment of new industry ideas. Maximum grant \$7,500.

Contact: Department of Rural Development, P.O. Box 4750, St. John's, Newfoundland, Canada A1C 5T7.

Prince Edward Island

Prince Edward Island has much to offer prospective investors in locating their new or expanded manufacturing or processing operation on "the Island". Traditionally, agriculture and fishing have been the cornerstones of the provincial economy. The Island's charming scenery has made tourism one of the province's principal industries. In recent years concentrated effort has provided the human and physical infrastructure required to facilitate industrial development. Indeed, in recent years the province has enjoyed considerable industrial growth, notably in specialized manufacturing and food processing. This industrial growth has helped to provide a greater balance to the provincial economy.

To assist in the further development of the industrial sector of the economy, the province provides a wide range of industrial incentives. To ensure orderly administration of these programs, the province has structured a number of facilitating departments and agencies.

Department of Tourism, Industry and Energy

The Industry Branch of the P.E.I. Department of Tourism, Industry and Energy is responsible for the development of policy and recommendations for consideration by the Executive Council relative to industrial development activities in Prince Edward Island. The branch offers a variety of support services to existing industries as well as to potential new industries locating in P.E.I. The branch is responsible for seeking out and attracting new industries to the province. **Contact:** Industry Branch, Department of Tourism, Industry and Energy, Charlottetown, Prince Edward Island, Canada C1A 7N8.

Industrial Enterprises Incorporated

Industrial Enterprises Incorporated is a Crown agency governed by a Board of Directors, and charged with responsibility for the further development of medium- to large-scale industrial operations in Prince Edward Island. The corporation provides long-term loans to assist in the purchase of land and buildings, as well as various incentive programs. **Contact:** Industrial Enterprises Inc., West Royalty Industrial Park, Charlottetown, Prince Edward Island, Canada C1E 1B0.

Market Development Centre

The Market Development Centre acts as a marketing agency for primary, processed and manufactured products in attempting to increase the sale of Island products in local and world markets. The activities and programs of the centre include sales activities, provisions of research and development, as well as a range of market management and promotion activities. **Contact:** Market Development Centre, P.O. Box 1510, Charlottetown, Prince Edward Island, Canada C1A 7N3.

Nova Scotia

Canada's second smallest province, Nova Scotia, is a peninsula on the east coast of Canada. The province has historically relied on the ocean for fish, trade and transportation, and now the ocean is the setting for aggressive new oil and gas exploration. Recently this activity has accelerated since Mobil Oil Canada announced a commercial natural gas discovery near Sable Island. Coal mining is experiencing a resurgence as the Cape Breton Development Corporation's mines produce metallurgical coal for the Sydney steel plant and for export, and thermal coal for power generation. Only 45 of the more than 1600 manufacturing companies in the province employ more than 200 people each, which means that slightly more than half the manufacturing labour force is in small businesses.

Expanding opportunities in the offshore have encouraged the development of advanced-technology and research and development companies. Research and education facilities include the Bedford Institute of Oceanography, the Nova Scotia Research Foundation Corporation, the Canadian Marine Transportation Centre and four universities. An ocean industries park in Dartmouth provides special programs and facilities to assist ocean-related industries. The deepwater port at Halifax has two container facilities, a major naval dockyard and full shipyard capacity with a drydock able to handle Panamax-size vessels. Autoport at Dartmouth is the largest automobile import-export operation in Canada. The ports of Halifax, Port Hawkesbury and Sydney are ice-free year-round.

Nova Scotia Department of Development

The Nova Scotia Department of Development is responsible for the development of businesses and industry. It offers loans to tourist industries and processing plants in agriculture, forestry and fisheries, through the Nova Scotia Resources Development Board. The Industrial Benefits Office acts as a focal point for inquiries about business opportunities arising in the offshore petroleum sector. The department also has specific assistance programs in marketing, management development and professional consulting. A rural industry program offers capital grants to businesses want-

ing to establish, expand or modernize outside the Halifax-Dartmouth area. Other programs are offered by the departments of Agriculture, Lands and Forests, Tourism, Labour, Fisheries and Education which may be relevant to business and industry. **Contact:** Nova Scotia Department of Development, P.O. Box 519, Halifax, Nova Scotia, Canada B3J 2R7.

Industrial Estates Ltd.

Industrial Estates Ltd. is a Crown corporation for the financing of industry in Nova Scotia. It provides long-term loans on 20-year first mortgages of up to 100 percent of the cost of land and buildings of manufacturers and 10-year financing of up to 60 percent of the installed cost of machinery. **Contact:** Industrial Estates Ltd., Suite 709, 5151 George Street, Halifax, Nova Scotia, Canada B3J 1M5.

New Brunswick

New Brunswick offers some very real geographic advantages to investors: on one side of the province is its common border with the United States, and on the other its seaports provide easy access to both North American and European markets. As a result, New Brunswick is an important trading area on the Atlantic coast. Agriculture, forestry and mining are all important economic activities in the province. In recent years, manufacturing has grown significantly, particularly pulp and paper, food processing and non-ferrous metals.

Department of Commerce and Development

The department offers firms established in New Brunswick an extensive support program in the areas of management, marketing, production and distribution. The department also seeks out and processes new industrial projects, and evaluates applications for financial assistance submitted to the New Brunswick Industrial Development Board by entrepreneurs wishing to establish businesses in New Brunswick. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1.

New Brunswick Industrial Development Board

The board offers financial assistance to firms in the form of direct loans, bonds or loan guarantees, or the acquisition of shares. The board also administers a joint federal-provincial grant and loans program for small businesses. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1.

Provincial Holdings Ltd.

This Crown corporation has holdings in the share capital of manufacturing companies located in New Brunswick. The agency can hold equity in manufacturing and processing industries that wish to become established in New Brunswick. **Contact:** The Department of Commerce and Development, P.O. Box 6000, Fredericton, New Brunswick, Canada E3B 5H1.

Quebec

Quebec has a wealth of natural resources on which it can base further economic expansion. The province has a relatively strong industrial base, particularly in aeronautics, shipbuilding and public transportation equipment. It has strong growth prospects in the machinery and electrical products industries. Quebec's tremendous reserves of hydro-electric power, available at a very competitive price, make the province an attractive location for the development of highly productive manufacturing industries, particularly in the electro-metallurgical and electrochemical sectors. Also worth mentioning are Quebec's relative strength and technological competence in transportation equipment, communications instruments, electrical equipment and pharmaceuticals.

Quebec Industrial Development Corporations (QIDC)

The QIDC is the Government of Quebec's principal tool for providing financial assistance to manufacturing firms established or being established in Quebec. This assistance is offered in different forms according to the nature and needs of the recipient firm: loans at prevailing market interest rates; partial reimbursement of loans when certain criteria are met; and participation in share capital. At press time, the QIDC had reevaluated and was awaiting a decision on its program of partial reimbursement of debt costs. **Contact:** Quebec Industrial Development Corporation, 1126 Chemin Saint-Louis, Room 700, Sillery, Quebec, Canada G1S 1E5.

Department of Industry, Commerce and Tourism

The department provides technical services to firms in marketing, financing, management, manpower and production, the negotiation of licensing agreements, market studies and statistics. Under certain conditions and for certain investments, the tourism industry may also be eligible for financial assistance from the department. It has permanent delegations or economic counsellors in Atlanta, Boston, Brussels, Caracas, Chicago, Dallas, Dusseldorf, Edmonton, London, Los Angeles, Milan, New York, Paris, Tokyo and Toronto. **Contact:** Quebec Department of Industry, Commerce

and Tourism, Industrial Promotion Branch, 1 Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.

Quebec enterprise development corporations (SODEQ)

These are private corporations that invest in small- and medium-sized Quebec manufacturing firms to which they offer management assistance. **Contact:** Department of Industry, Commerce and Tourism, Enterprise Services Branch, 710 Place d'Youville, 8th Floor, Quebec, Quebec, Canada G1R 4Y4.

SOQUEM, SOQUIM, SOQUIP, SOQUIA, REXFOR

These Quebec government-owned companies are involved in financial participation in joint ventures with Canadian or foreign private-sector investors in the mining sector (SOQUEM), oil and gas (SOQUIP), agriculture and food industries (SOQUIA) and forestry (REXFOR). **Contact:** Quebec Ministry of Industry, Commerce and Tourism, Industrial Promotion Branch, 1 Place Ville-Marie, Suite 2300, Montreal, Quebec, Canada H3B 3M6.

Processing firms can also receive exemptions from the provincial sales tax on certain products, and tax rebates on fuel purchases and on industrial machinery used for processing in Quebec.

Ontario

Ontario is one of Canada's most important centres of economic activity. Of all the provinces, it has the largest number of manufacturing firms and is the home of numerous head offices. Its capital, Toronto, is the financial heart of the country and the service industry is highly concentrated there. Its most important industries are automobile manufacturing, steel, tourism, mining and pulp and paper. The Government of Ontario offers various programs which provide financial incentives and advisory services to stimulate the economy and create jobs.

Development corporations

Ontario has three development corporations: the Ontario Development Corporation, the Eastern Ontario Development Corporation and the Northern Ontario Development Corporation. They offer a comprehensive program of financial and advisory services to business and industry throughout Ontario. Secondary manufacturing industries, service industries closely allied to manufacturing, tourist operations and tourist attractions are all eligible for development corporation assistance.

The type of financial assistance provided is tailored to the needs of the applicant and may be provided through any one or combination

of the following methods: corporation consultants may help the client in approaching private lenders or other sources of government funding; guarantees may be provided to encourage private lender participation; direct loans from the development corporations involving a variety of terms and conditions of repayment can be adapted to meet the specific needs of the small business person; and special incentives may be offered if it can be shown that the project would not succeed unless an incentive were available. **Contact:** the appropriate corporation at: 1200 Bay Street, 6th Floor, Queen's Park, Toronto, Ontario, Canada M7A 2E7.

Small Business Development Corporations Program

Incentives in the form of grants to individual investors and tax credits to corporate investors are provided to encourage equity investment in Ontario-based small-business ventures. The incentives are available only on new issues of SBDC shares.

Subject to certain conditions, investors may establish their own small business development corporation through a straightforward registration procedure. In 1981-82, the minimum capital requirement for an SBDC is \$100,000. Businesses involved in mining, oil and gas exploration, development and production do not qualify as eligible investments, but are handled in separate incentive programs.

Upon receipt of their share certificates from the SBDC, individuals may apply to the Ontario Ministry of Revenue for a grant amounting to 30 percent of their capital investment in the SBDC. A special statement concerning the share purchase is provided by the SBDC to the Ministry of Revenue for this purpose. For corporations, the statement is submitted to the Ministry of Revenue and, when approved, installment payments not fully applied in the year of investment may be carried forward indefinitely. **Contact:** Ministry of Revenue, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 1X8.

Ministry of Industry and Trade

The Ministry of Industry and Trade assists the private sector in three main areas: expansion of trade, encouraging investment opportunities and strengthening the competitiveness of Ontario's industrial base. The ministry assists businesses in selling to promising markets, both domestically and internationally. Initiatives in this area include identification of major sectors with high import-replacement opportunities, working with the private sector in an expanded consumer "Buy Canadian" program and assisting large Canadian firms to find domestic suppliers. To help Ontario capture more international trade and investment, a new trade division works with the Ontario International Corporation to recruit participa-

tion in trade missions and trade fairs to introduce Ontario firms to world markets and to build on existing opportunities in foreign trade. The ministry is responsible for the launching of six technology centres in the province. These centres will be concerned with the application of advanced but existing technology to Ontario industry. Other ministry activities include assisting small business development, encouraging world-scale manufacturing facilities, encouraging emerging sectors, and accelerating new technology introduction and transfer. **Contact:** Ontario Ministry of Industry and Trade, Parliament Buildings, Queen's Park, Toronto, Ontario, Canada M7A 2E1.

Manitoba

Gateway to Canada's west, Manitoba has one of the most diversified provincial economies in Canada. Agriculture and mining constitute the primary sector, but in recent years the province has seen its economic base expand as a result of a growing manufacturing sector which leads the economy in terms of output and employment generation. For all Manitoba programs **contact:** Manitoba Department of Economic Development and Tourism, 155 Carlton Street, Winnipeg, Manitoba, Canada R3C 3H8.

Department of Economic Development and Tourism

The major thrust of the department's programs for business and industry is Enterprise Manitoba, the \$44-million federal-provincial Industrial Development Agreement. Its major objective is to stimulate growth in manufacturing, and has identified six priority sectors: aerospace, electronics, food and beverages, health-care products, light machinery and transportation. The department provides strong service support to these industries through its pool of experienced industrial consultants.

Small Enterprise Development

Small Enterprise Development is responsible for providing a broad range of programs to small- and medium-size business with an emphasis on manufacturing and processing enterprises. Rural Small Enterprise Incentives Program provides interest-free forgivable loans for manufacturing, processing or related maintenance or repair business. New or expanding firms are eligible for assistance and must be located outside metropolitan Winnipeg.

Advance Factory Space provides self-contained modules from 140 m² to 379 m² in two Enterprise Development Centres located in Brandon and Winnipeg. Available on a cost-sharing basis for new businesses, or businesses launching a new product, the program is designed to permit earlier start-up than might

otherwise be possible. As well, the centres offer technical and business services through the use of staff and private consultants, the latter on a 50-percent cost-sharing basis.

Trade Development Branch

Trade Development provides services and support to increase interprovincial and export sales of Manitoba-made goods and services, thus strengthening and expanding the manufacturing base of the province. The aim is to upgrade marketing capabilities of Manitoba firms and to tie in sales of Manitoba-made products to major projects in Western Canada.

Regional Benefits Branch

This branch has been established to maximize the use of Manitoba goods and services in all major capital projects throughout the province and to maximize purchases by the Manitoba government of Manitoba-made goods and services.

Travel Manitoba

Responsible for marketing Manitoba as a desirable vacation destination, this branch assists entrepreneurs with the development of tourism accommodations, facilities and attractions. The branch also administers and delivers the programs of Destination Manitoba, the federal-provincial cost-shared agreement for the development of tourism in Manitoba.

Manitoba Design Institute

The institute provides design consulting and advisory assistance to manufacturers for design research and product innovation. Cost-shared funding is available for design projects — packaging design, brochure design, corporate identity and product design improvement.

Manitoba Research Council

The council provides technical assistance in the area of product and processes development, raw material selection and testing, product testing and quality control. The council operates Industrial Technology and Food Product Development Centres to deliver these and other technology-assistance programs.

Manitoba Interest-Rate Relief Program

This small business program offers limited one-time assistance to business in default to major creditors. At present, businesses with

gross receipts of less than \$350,000 are eligible for up to \$6 000 a year in aid for up to two years ending December 31, 1983.

Saskatchewan

Saskatchewan is Canada's most important agricultural province and given the importance of agriculture to the province's economy, it is not surprising that a number of important agricultural equipment manufacturers have established themselves there. In addition, Saskatchewan has a growing resource sector, particularly in potash, uranium and petroleum. The province is also the home of the Canadian west's largest steel industry and its production of pipe and steel products has been increasing steadily. Saskatchewan has a special interest in industries related to machinery and equipment, food processing, electronics, plastics, pharmaceuticals and industries supplying the resource sector.

Department of Industry and Commerce

The department offers a variety of development programs to assist businesses in the province. These include: The Aid to Trade Program for manufacturers wishing to extend their market areas through promotion; the Product Development Program which provides assistance for developing and testing of new products; and the Management Development Program which is aimed at helping firms improve performance through counselling, technical assistance, courses and seminars. For the most part, these programs provide assistance up to 50 percent of approved costs.

The Small Industry Development Program provides forgivable loans to manufacturers planning to expand, modernize or establish new facilities in Saskatchewan. The amount of assistance depends upon the size of the project and its location. Grants are available under the Small Business Interest Abatement Program to businesses borrowing to start new operations or expand and upgrade existing ones. **Contact:** Saskatchewan Department of Industry and Commerce, 3rd Floor, SaskTel Building, 2121 Saskatchewan Drive, Regina, Saskatchewan, Canada S4P 3V7.

Saskatchewan Economic Development Corporation (SEDCO)

SEDCO's primary objective is to foster economic growth within the province. This role is facilitated through diversified financial, industrial and property services to virtually all sectors of the provincial economy. SEDCO provides project financing to Saskatchewan businesses in the form of term financing, guarantees, equity participation and a variety of

special programs as the need arises. In addition, SEDCO organizes industrial sites for lease or sale and provides property-related services to businesses in the province. SEDCO is also the developer and manager of Innovation Place, a major research park situated adjacent to the University of Saskatchewan at Saskatoon. **Contact:** Saskatchewan Economic Development Corporation, Communications, 1106 Winnipeg Street, P.O. Box 5024, Regina, Saskatchewan, Canada S4P 3M3.

Alberta

With its abundant petroleum, natural gas and coal resources, Alberta is Canada's most important energy-producing province. In addition to intense exploration and development activities in Alberta's conventional and non-conventional energy resources, the manufacturing and service sectors have grown extensively. Alberta is also an important agricultural producer, particularly in grains and livestock. The volume of government revenues from petroleum production royalties and exploration and development permits has made it possible for Alberta to have the lowest personal and corporate income tax rates in Canada.

Department of Economic Development

The department offers a variety of services relevant to industry. Its Strategic Planning Services are responsible for coordinating economic activity related to a number of government departments. Its Industry Development Branch seeks to improve the performance of Alberta's manufacturing and processing industries by means of sector development programs, business expansion assistance and new-business establishment programs. The department offers marketing services, seeking to match product and manufacturing capacities with domestic and foreign market opportunities as well as assisting business on marketing problems. The department also offers trade-development services by assisting the industrial and consulting sectors to expand export sales through trade shows, exhibits, missions, joint ventures and licensing opportunities. **Contact:** Department of Economic Development, Government of Alberta, Industry Development Branch, 9th Floor, Pacific Plaza, 10909 Jasper Avenue, Edmonton, Alberta, Canada T5J 0M8.

Alberta Opportunity Company

The company provides funds for growth, expansion and diversification of industry when other forms of conventional financing are not readily available. This includes direct loans at market rates for up to 15 years and loan guarantees. Emphasis is placed on small

business in smaller communities. **Contact:** Alberta Opportunity Company, P.O. Box 1860, Ponoka, Alberta, Canada T0C 2H0.

Department of Tourism and Small Business

The department aims to develop Alberta as a year-round destination for tourists by offering marketing and development services to the tourist industry. Small business is assisted by means of counselling activities, management consulting, small business guides, community economic development, and an industrial land and business site location program.

Contact: Department of Tourism and Small Business, Government of Alberta, 16th Floor, Capitol Square, 10065 Jasper Avenue, Edmonton, Alberta, Canada T5J 0H4.

British Columbia

Canada's Pacific province, British Columbia, has an extensive export-oriented resource-based economy in which forestry, mining, fishing and agriculture predominate. British Columbia's geographical position has made it a natural site for the development of important export industries with direct access to Pacific Rim and other world markets. In fact, the province's largest city, Vancouver, is Canada's gateway for trade with Japan, China and other Asian countries, the western United States, Latin America and Europe. British Columbia's principal manufacturing firms are closely tied to the province's natural resources, essentially forest products, pulp and paper, mineral commodities and hydrocarbons.

Ministry of Industry and Small Business Development

The ministry offers a variety of programs designed to stimulate industrial and export development, especially in secondary manufacturing. Its export services include programs related to trade missions, market development, incoming buyers and trade shows. The ministry's technical services assist companies to expand their facilities, diversify their product lines or establish new businesses by means of financial support for hiring outside professionals to help develop corporate plans and operations.

The ministry also coordinates and manages a number of federal-provincial programs designed to encourage the economic and industrial development of the province. One such program is a \$70-million agreement to provide assistance for research, regional economic development commissions, small business and community industrial development (industrial parks, sites, malls and advance factory space). A \$60-million agriculture and rural development program provides assistance for research, planning, training, market promotion, coor-

inated resource management, primary resource development, support services and community development. A third program, the result of a \$50-million agreement, provides assistance to the province's travel industry. All these programs have geographical target regions which generally exclude the areas in and around Vancouver and Victoria. **Contact:** Executive Director, Business Development Branch, Ministry of Industry and Small Business Development, 315 Robson Square, 800 Hornby Street, Vancouver, British Columbia, Canada V6Z 2C5; or, Director, Program Design and Project Appraisal Branch, Ministry of Industry and Small Business Development, Parliament Buildings, Victoria, British Columbia, Canada V8V 1X4.

British Columbia Development Corporation (BCDC)

The BCDC provides financing in the form of term loans, loan guarantees, performance bonds, indemnities to chartered banks and leasing of buildings. While there is no limit on the amount of funds the corporation may provide, in large-scale projects it prefers to provide assistance in conjunction with other financial institutions. As well as its own corporate lending activity, the BCDC administers the province's Low Interest Loan Assistance Program by virtue of which loans can be made to manufacturing or processing businesses that wish to modernize, expand or establish in British Columbia. Finally, the BCDC provides serviced land on a sale or lease basis to secondary manufacturing and related service industries. Land is available through the Land Development Division. The BCDC acts as project manager of large capital projects in British Columbia. **Contact:** British Columbia Development Corporation, 272 Granville Street, 200 Granville Street, Vancouver, British Columbia, Canada V6C 1S4.

Northwest Territories

NWT Financial Assistance Programs

The Government of the Northwest Territories administers a number of financial assistance programs to promote the development of economic activity and the creation of jobs in the NWT by assisting business operations and related activities. Special emphasis is given to businesses owned or operated by the Territories' original peoples. Assistance may include immediate interim financing to resident business enterprises, and seed capital funds to complement development loans. Special ARDA cash grants are given for projects that provide jobs and improve incomes and opportunities of people of Indian and Inuit ancestry. **Contact:** Government of the Northwest Territories, Box 1320, Yellowknife, NWT, Canada X1A 2L9.

Statistical tables

REVIEWABLE ACQUISITION CASES*

Table 1 — Outcome or status

	JAN — JUNE					
	1978	1979	1980	1981	1981	1982
Reviewable new cases	360	380	337	341	173	179
Carried over from previous period	73	106	114	123	123	179
Total of above	433	486	451	464	296	358
Total resolved	327	372	328	285 ^f	113	194
Allowed	282	320	249	230	91	161
Disallowed	28	24	37	29	13	15
Withdrawn	17	28	42	26 ^f	9	18
Carried over to next period	106	114	123	179 ^f	183	164
Allowed cases as percentage of resolved (%)	86	86	76	81 ^f	81	83
Value of assets, all cases (\$000,000)	4,489	4,049	3,988	8,320	1,649	1,653

Table 2 — Country of control

	JAN — JUNE					
	1978	1979	1980	1981	1981	1982
Total	360	380	337	341	173	179
United States	243	248	197	202	114	120
United Kingdom	47	52	53	46	23	19
Other Western Europe	52	68	65	70	28	26
Austria	—	1	—	—	—	—
Belgium	1	2	1	4	—	1
Denmark	1	1	1	2	1	—
Finland	—	2	3	2	—	1
France	5	9	12	12	4	5
Germany, West	17	22	20	21	10	10
Greece	—	1	—	—	—	—
Italy	1	2	2	2	—	—
Liechtenstein	1	1	2	—	—	—
Luxembourg	1	—	—	—	—	—
Netherlands	8	6	7	4	3	1
Norway	1	—	1	2	—	1
Spain	—	1	—	—	—	—
Sweden	7	13	6	9	6	4
Switzerland	9	7	10	12	4	3
All other	18	12	22	23	8	14
Australia	—	3	4	2	1	2
Bermuda	—	1	1	2	1	—
Japan	7	2	2	3	2	2
Others	11	6	15	7	4	10
Allowed cases as percentage of resolved	%	%	%	%	%	%
United States	87	85	74	76 ^f	76	81
United Kingdom	78	87	79	78	77	89
Other Western Europe	89	88	78	92	96	82
All other	80	93	76	90	83	93

Table 3 — Industrial sector

	JAN — JUNE					
	1978	1979	1980	1981	1981	1982
Total	360	380	337	341	173	179
Primary	30	29	17	17	9	12
Agriculture, fishing and trapping	5	4	1	3	1	2
Forestry	1	—	2	—	—	—
Mines, quarries, oil wells	24	25	14	14	8	10
Manufacturing	162	178	141	133 ^f	71	71
Food, beverage and tobacco	15	14	14	6	4	5
Rubber, plastic and leather	12	5	6	8	6	6
Textiles, knitting and clothing	4	14	7	11 ^f	2	2
Wood, furniture and paper	14	10	8	15	7	1
Printing, publishing and allied	4	5	4	6	4	2
Primary metal and metal fabrication	20	34	24	22	9	15
Machinery and transport equipment	28	43	23	22	13	13
Electrical products	16	20	17	10	6	10
Non-metallic mineral products	8	4	6	5	4	3
Petroleum and coal products	1	1	—	1	1	—
Chemical	22	17	12	17	10	10
Miscellaneous	18	11	20	10	5	4
Construction and services	168	173	179	191 ^f	93	96
Construction	1	6	6	15	7	6
Transportation, communication, utilities	10	9	9	8	5	5
Trade	101	93	93	83	38	48
Finance, insurance, real estate	19	12	27	19	8	6
Community, business, personal services	37	53	44	66 ^f	35	31

* Provision for review of acquisitions came into force April 9, 1974.

^f Revised.

REVIEWABLE NEW BUSINESS CASES*

Table 4 — Outcome or status

	JAN — JUNE					
	1978	1979	1980	1981	1981	1982
Reviewable new cases	331	379	398	421	213	185
Carried over from previous period	52	64	70	129	129	200
Total of above	383	443	468	550	342	385
Total resolved	319	373	339	350 ^f	145	235
Allowed	273	323	287	247	106	151
Disallowed	21	22	27	43	17	27
Withdrawn	25	28	25	60 ^f	22	57
Carried over to next period	64	70	129	200 ^f	197	150
Allowed cases as percentage of resolved (%)	86	87	85	71	73	64
Planned investment, all cases (\$000,000)	323	202	1,005	1,068	471	2,255

Table 5 — Country of control

	JAN — JUNE					
	1978	1979	1980	1981	1981	1982
Total	331	379	398	421	213	185
United States	192	205	223	237	119	107
United Kingdom	26	45	37	40	23	15
Other Western Europe	80	82	111	78	37	45
Austria	3	—	3	—	—	—
Belgium	1	5	1	2	1	1
Denmark	4	2	7	2	2	1
Finland	1	7	1	4	4	3
France	16	15	23	19	6	12
Germany, West	18	19	25	23	11	11
Gibraltar	—	—	1	—	—	—
Greece	1	—	1	—	—	—
Ireland	1	1	—	1	1	—
Italy	10	6	14	4	3	1
Liechtenstein	—	—	1	—	—	—
Luxembourg	1	—	1	1	—	—
Monaco	—	—	—	—	—	—
Netherlands	1	4	12	8	4	3
Norway	3	1	3	1	—	5
Portugal	1	—	—	—	—	1
Spain	2	1	2	—	—	—
Sweden	5	6	9	5	2	2
Switzerland	12	15	7	8	3	5
All other	33	47	27	66	34	18
Australia	3	2	3	1	—	1
Hong Kong	3	4	6	27	17	1
India	1	1	—	3	—	1
Japan	6	17	3	14	7	6
Others	20	23	15	21	10	9
Allowed cases as percentage of resolved	%	%	%	%	%	%
United States	86	86	84	70 ^f	73	65
United Kingdom	81	92	83	76	77	74
Other Western Europe	87	88	89	75	71	77
All other	82	83	75	61	75	44

Table 6 — Industrial sector

	JAN — JUNE					
	1978	1979	1980	1981	1981	1982
Total	331	379	398	421	213	185
Primary	27	16	42	23	14	3
Agriculture, fishing and trapping	2	—	7	4	2	2
Forestry	2	1	2	—	—	—
Mines, quarries, oil wells	23	15	33	19	12	1
Manufacturing	99	100	126	118	61	50
Food beverage and tobacco	6	11	11	5	4	5
Rubber, plastic and leather	5	9	11	10	3	3
Textiles, knitting and clothing	5	8	6	10	7	4
Wood, furniture and paper	6	9	14	9	5	1
Printing, publishing, and allied	4	5	4	3	3	1
Primary metal and metal fabrication	12	13	24	21	10	8
Machinery and transport equipment	19	20	18	23	13	13
Electrical products	7	8	13	7	2	6
Non-metallic mineral products	6	1	5	6	3	2
Petroleum and coal products	—	—	1	1	1	—
Chemical	6	7	9	10	4	4
Miscellaneous	23	9	10	13	6	3
Construction and services	205	263	230	280	138	132
Construction	14	12	12	18	10	7
Transportation, communication, utilities	11	11	7	11	4	6
Trade	103	156	129	149	72	82
Finance, insurance, real estate	11	14	7	11	7	2
Community, business, personal services	66	70	75	91	45	35

* Provision for review of new businesses came into force October 15, 1975.

^f Revised.

Articles in previous issues:

Vol. 2, No. 1	<p>New incentives for industrial research and development</p> <p>Investment opportunities and prospects in the Atlantic provinces</p> <p>FIRA procedures: clarifying some legal issues</p> <p>Banking in Canada: the chartered banks</p> <p>The short-term money market in Canada</p> <p>Corporate concentration and performance: recommendations of the Royal Commission</p>
Vol. 2, No. 2	<p>An introduction to Canada's coal industry</p> <p>European investment in Canada: West European</p> <p>Soviet and East European</p> <p>Canadian participation in foreign-owned businesses in Canada: Management</p> <p>Equity</p> <p>Small business in Canada</p>
Vol. 3, No. 1	<p>Japanese investment in Canada</p> <p>Canada's industrial relations in international perspective</p> <p>Acquisitions by multinationals</p> <p>Capital markets in Canada</p> <p>Westinghouse Canada: beyond the branch plant</p> <p>Investment opportunities in energy conservation</p>
Vol. 3, No. 2	<p>The challenge of Alberta's non-conventional oils</p> <p>A new financial community in the West</p> <p>U.S. investment in Canada</p> <p>O&K Orenstein & Koppel: A case study</p> <p>Pétromont: a key to Montreal's economic future</p> <p>Are foreign subsidiaries more innovative?</p>
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